



TO: NQF Members

FR: NQF Staff

RE: Voting Draft Report: NQF-Endorsed Measures for Perinatal and Reproductive Health

DA: August 4, 2016

## Background

Despite the fact that the United States spends more on perinatal healthcare than any other health sector (\$111 billion in 2010) the US is ranked 61st in the world for maternal health. In 2014, there were nearly 4 million births in the US. In 2011, of the 7.6 million hospital stays with Medicaid as the primary payer, 29% (or 3 of the top 5 conditions) were related to pregnancy and childbirth: newborn infant, trauma to the perineum and vulva caused by childbirth, and delivery following a Cesarean section. For the 61 million women of reproductive age in the US, access to high-quality care before and between pregnancies, including pregnancy planning, contraception, and preconception care, can reduce the risk of pregnancy-related complications, including maternal and infant mortality.

The National Quality Forum's (NQF) portfolio of measures for Perinatal and Reproductive Health includes measures for reproductive health; pregnancy, labor and delivery; high-risk pregnancy; newborn, premature, or low birthweight newborns; and postpartum patients.

For this project, the 27-member Perinatal and Reproductive Health Standing Committee evaluated 9 newly submitted measures and 15 measures undergoing maintenance of endorsement review against NQF's standard evaluation criteria. The Committee recommended 18 measures for endorsement, did not reach consensus on 1 measure, and did not recommend 5 measures. Evaluated measures are listed by topic in the draft report.

## Comments Received

NQF solicits comments on measures undergoing review in various ways and at various times throughout the evaluation process. First, NQF solicits comments on endorsed measures on an ongoing basis through the Quality Positioning System (QPS). Second, NQF solicits member and public comments prior to the evaluation of the measures via an online tool located on the project webpage. Third, NQF opens a 30-day comment period to both members and the public after measures have been evaluated by the full committee and once a report of the proceedings has been drafted.

## **Pre-evaluation comments**

The pre-evaluation comment period was open from March 22-April 5, 2016, for all 24 of the measures under review. A total of 7 pre-evaluation comments were received, the majority of

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which pertained to, and were supportive of, the 3 newly-submitted contraceptive measures. All of these pre-evaluation comments were provided to the Committee prior to their initial deliberations.

#### **Post-evaluation comments**

The Draft Report went out for Public and Member comment from June 7-July 6, 2016. During this commenting period, NQF received 178 comments from 10 member organizations and 35 members of the public (organizations and individuals):

Consumers -3 Professional -2 Purchasers -0 Health Plans -2

Providers – 2 QMRI – 1

Supplier and Industry – 0 Public & Community Health - 0

During the post comment call, the Committee reviewed and responded to comments submitted during the NQF member and public comment period. All comments NQF received are included in the <u>Comment Table</u>. This comment table contains the commenter's name, comment, associated measure, topic (if applicable), and Committee responses. Please refer to this comment table to view the individual comments received and the responses to each.

Where appropriate, NQF staff has made revisions to the draft report consistent with the Committee responses to comments. These are identified as red-lined changes in the draft report. Please note that typographical errors and grammatical changes are not red-lined, to assist in reading.

## Comments and their Disposition

Three general themes were identified in the post-evaluation comments, as follows:

- 1. Support for Harmonization of Competing Measures
- 2. Concern around Patient Choice
- 3. Measure Gaps

## Theme 1 – Support for Harmonization of Competing Measures

This project reviewed 3 competing measures of bloodstream infection: #0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted); #0478: Neonatal Blood Stream Infection Rate (NQI 03); and #1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns. After extensive discussion at the in-person meeting, the Committee was unable to select a "best-in-class" as each of the measures had both strengths and weaknesses. Ultimately, the Committee recommended all 3 measures with follow-up on harmonization or consolidation in 18 months. One commenter submitted one comment on each of the 3

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measures agreeing with the Committee's decision to recommend, but urging the developers to coordinate or combine measures.

#### Theme 2 – Patient Choice

Many of the comments on the contraception measures focused on the importance of patient choice. Both the breastfeeding and contraceptive use measures received numerous comments noting the need for patient preferences to be considered. The Committee agrees that patient choice and the need for person-centered decision-making is paramount.

## Theme 3 – Measure Gaps

Many of the comments noted the lack of measures for perinatal and reproductive healthcare and were strongly supportive of the submitted measures. Despite the weaknesses of some of the proposed measures, the commenters urged the Committee to recommend them while new, improved measures are created.

Several comments suggested specific areas for measure development. The Committee has agreed to include the following measure gaps:

- A woman-reported "balancing measure" of experience of receiving contraceptive care;
- Chlamydia screening measures for men;
- Measures related to care for women who do not need extensive intervention
- Measures of the quality of prenatal care;
- A measure requiring documentation of HIV testing upon entry into prenatal care, and documentation of maternal treatment and infant prophylaxis with anti-HIV medication;
- A measure assessing gestational age at birth
- Measures related to the provision of options counseling that includes abortion care for women with an unintended pregnancy;
- Measures related to the access and availability of abortion care including medication abortion, and post-abortion access to contraceptives and contraceptive counseling
- Rate of vaginal birth after cesarean (VBAC)
- Measures indicating whether women have access to a choice among pharmacologic and non-pharmacologic methods of comfort and pain relief and support for their methods of choice
- Measures of many underused evidence-based intrapartum care practices, including: guidance on delaying admission to active labor, use of intermittent auscultation, access to and use of tubs and showers, support for being upright and moving about in labor, use of non-supine positions for giving birth, and early maternal-newborn skin-to-skin contact
- CAHPS Maternity adaptations of CAHPS facility, clinician/group and health plan experience of care surveys for maternal-newborn care
- Risk adjusted Cesarean section rate measure that includes age and BMI
- Access to care at the appropriate level
- Measures examining outcomes and rates of longer-term breastfeeding
- Measures of maternal depression screening, referral and treatment
- Measures of intrapartum nursing care of childbearing women and newborns

- Composite woman-reported measure of outcomes of the full episode of maternity care collected at about six weeks postpartum
- Measures of culturally sensitive care, or care that accords with the women's desires
- Measures at the level of maternity care clinician and group for prenatal, intrapartum
  and postpartum phases of maternity care, including those that align with existing
  measures at facility, health plan and other levels
- Measures of shared decision making across all phases of maternity care
- Measures of shared care planning and care coordination across the full episode of maternity care
- Measures that can evaluate the impact of different payment and care delivery models on women's reproductive health
- Timeliness of prenatal and postpartum care
- EMeasure versions of endorsed measures

## **Measure Specific Comments**

#### **Recommended Measures**

### 0033: Chlamydia Screening in Women

This measure received 6 comments, generally supporting continued endorsement, but also raising some concerns focused around the exclusions and suggestions for updates, as well as how "sexually active" is defined. Comments recommended improvements such as expanding the age range, including males, and establishing appropriate benchmarks. The developer responded that "The measure's age range aligns with the US Preventive Services Task Force screening recommendation and corresponds to the age groups with highest chlamydia prevalence. In females, the highest chlamydia infection rates occur in those aged 20-24 years, followed by those 15-19 years (CDC. 2012 Sexually Transmitted Diseases Surveillance. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2014. Accessed at www.cdc.gov/std/stats12/default.htm). The measure uses two administrative methods to identify sexual activity: claims/encounters that suggest sexual activity (pregnancy codes, sexual activity codes) and pharmacy data (contraceptives). For those who qualify based on a pregnancy test alone, if the test was used to rule out pregnancy for x-rays or retinoid prescription, those females are excluded. This method to assess sexual activity using an administrative algorithm was tested and found to reasonably identify sexually active females. Women who have sex with women and meet any of the criteria specified would be included in the denominator."

## 0469: PC-01 Elective Delivery

## 2829: PC-01 Elective Delivery [eMeasure]

A total of 12 comments were received on both versions of the measure. Generally, the comments were in support, and several noted that while rates have improved, much remains to be done. However, a pair of comments noted concerns with the measure exclusions. A second pair of comments noted that elective delivery/induction may be preferable in very rural areas that lack access to secondary and tertiary facilities. The developer responded "Over the last several years The Joint Commission has responded to suggestions from the obstetrics community

to adjust the specifications for PC-01: Elective Delivery to allow for a wider array of exclusions. Some of these have resulted in new ICD codes being added and others have required the addition of new exclusions that can only be determined by chart reviews (an unfortunate but currently needed situation). The Joint Commission continues to receive numerous requests for "appeals" and new exclusions which are uncommon or rare conditions justifying the need for an early-term elective delivery. While many of these conditions have been incorporated into the current PC-01 specifications, medical issues are varied enough that it is impossible to enumerate 100% of the potential circumstances that could justify an early-term elective delivery. For example, a mother with a malignancy and need to start chemotherapy might require a delivery before 39 weeks. Although these cases are rare their occurrence can be such to generate an early-term elective delivery rate of 2-4%. This supports the rationale for not expecting this measure to consistently reach 0% elective deliveries. The Joint Commission has worked closely with a technical advisory panel (TAP) since the inception of this project. The TAP is comprised of leading national perinatal care experts including obstetricians, pediatricians, neonatologists and nurse clinicians. Recently, the TAP reaffirmed the goal of 5% which is supported by the 2013 study by Clark, et. al, validating the denominator exclusion criteria for PC-01.

We consider ACOG an authoritative source. Based on the ACOG definition one of the codes from the first set applies to all cases with SROM regardless of gestational age, and only the absence of labor should be required to use this code. If the ruptured membranes are >24 hours then one of the codes from the second set applies." Requiring gestational age and careful scrutiny (chart reviews) for exclusions does preclude the use of claims data but there is progress in creating an eMeasure version. However, because of the small sample size for this measure for a given health plan within a given hospital it will unlikely be a practical measure at the plan level. While this has been proposed as a potential concern, rural hospitals in general have done very well on this measure. In genera, I there are few logistical reasons that truly need elective delivery prior to 39 weeks of gestation. In any case, the federal mandate for reporting of this measure for MediCare P4P specifically excludes Critical Access Hospitals."

## 0470: Incidence of Episiotomy

This measure received 4 comments, all in support of endorsement. One comment suggested the additional exclusion of fetal distress requiring more rapid delivery. The developer responded "Fetal distress requiring more rapid delivery should NOT be an exclusion for this measure. This is a hospital level measure and the inclusion of these cases will not have a material impact on a hospital's rate and runs the risk of over coding fetal distress."

## 0471: PC-02 Cesarean Birth

The developer has updated specification for this endorsed measure that removes the age stratification. This measure received 25 comments during the post comment period. Of these, 7 organizations commented in support of the Committee's recommendation, noting continued disparities in care, the risks associated with cesarean sections, and evidence-based processes to reduce Cesarean birth rates safely.

The measure received 17 comments from 11 individuals disagreeing with the Committee's recommendation. The concerns raised focused on two issues: the lack of risk adjustment in the measure and concerns over the Healthy People 2020 target rate of 23.9%. While this target rate was not set by the measure developer or by NQF, a number of commenters indicated that without risk adjustment, this may not be than appropriate target rate. Commenters urged the measure to include risk adjustment for patient factors that impact the likelihood of Cesarean birth, including patient characteristics such as age or obesity, or medical factors such as diabetes, hypertensive disorders, LGA or SGA fetuses with/without growth restriction, etc.

The developer responded that The final decision to remove all risk-adjustment from this measure was based on evidence from two recent studies <sup>1,2</sup> which have shown that when tested against a more robust risk adjusted model (age, BMI, race, hypertension, diabetes), the studies found differences limited to 1-2%. The Joint Commission's Perinatal Care Technical Advisory Panel has recommended using the simple cesarean birth rates without further risk adjustment. Therefore, effective with discharges beginning July 1, 2016, The Joint Commission has removed all risk adjustments until such time as data are available demonstrating the need for risk adjustment and the feasibility of collecting any risk factors required. The Joint Commission has not set a target for cesarean birth rates, nor does it establish benchmarks for any of its measures. The intent of this measure is for hospitals to understand their baseline rate of performance in order to determine if performance improvement efforts are indicated and, when they are, effective over time.

# 0475: Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge

This measure received 4 comments, generally supporting endorsement. One comment noted that the measure as specified does not adequately reflect the immunization of infants who had deferred vaccination until the infant's first visit to the pediatrician. Another comment raised the issue that babies who are transferred for a higher level of care are often transferred prior to the birthing facility having the opportunity to administer the vaccine; the comment urged the exclusion of newborns who are transferred to a tertiary care facility. One of the supportive comments suggested that the measure be modified to "recommend educational material be provided to parents regarding efficacy of vaccines since some parents decide to not vaccinate". The developers We agree that educational materials for parents are helpful. Vaccine Information Statements are required (by federal law) to be given to the patient, parent, or legal representative prior to administration of certain vaccines, including HepB vaccine. The Vaccine Information Statements provide information about the benefits and risks of specific vaccines, and include general information on vaccine efficacy (note that Vaccine Information Statements are generally written at a 10th grade reading level). Hospitals or birthing facilities may elect to provide additional information to parents regarding HepB vaccine efficacy. While we are open to excluding newborns who are transferred to a tertiary care facility from the denominator, we feel that this is unnecessary. Overall, the number of infants transferred out of a hospital (compared to the total number of infants born at a hospital) is low. The numerator specifies number of infants administered HepB vaccine prior to discharge, or within 1 month of life if the infant had an extended hospital stay. The majority of infants needing a transfer will have an extended hospital stay, and therefore have ample opportunity to receive the birth dose at the

receiving hospital. The birthing hospital could obtain records regarding HepB vaccine receipt from the receiving hospital and/or an immunization registry. As such, this issue should not affect the measure in any meaningful way. The developers agree that the measure would not reflect immunization of infants who had deferred vaccination until the infant's first visit to the pediatric office. However, delay of the HepB birth dose should occur only in very rare circumstances. The Advisory Committee on Immunization Practices states "on a case-by-case basis and only in rare circumstances, the first dose may be delayed until after hospital discharge for an infant who weighs greater than or equal to 2,000 grams and whose mother is HBsAg negative."

Administration of a birth dose in the hospital (even without HBIG) serves as a safety net to prevent perinatal infection among infants born to positive mothers who are not identified because of errors in testing or reporting. Administration of a birth dose has also been associated with higher rates of on-time completion of the HepB vaccine series and improved completion rates for other vaccines.

#### 0476: PC-03 Antenatal Steroids

Of the 5 comments received on this measure, 4 were fully in support. One comment raised concerns with the measure's numerator and denominator: first, with the denominator exclusion of "a documented reason for not giving steroids", pointing out that this could allow exclusions for facility structural issues, knowledge deficiencies on the part of the provider, or an "improper attitude" on the part of the provider or hospital unit. The comment also raised the issue of potential gaming, noting that the numerator captures use of steroids at any time, but they are optimally effective if given 24 hours to 7 days prior to early preterm birth. The developer responded that the purpose of the measure is to evaluate that patients at risk of preterm delivery at >=24 and <34 weeks gestation receive antenatal steroids prior to delivering preterm newborns. The measure is not constructed to evaluate other aspects of established guidelines. Hospitals would need to use other measures or evaluation methods to determine adherence to additional guidelines.

#### 0480: PC-05 Exclusive Breast Milk Feeding

#### 2830: PC-05 Exclusive Breast Milk Feeding [eMeasure]

A total of 13 comments were received on both measures. Comments were generally supportive of both the electronic and paper versions of the measure, but a number of concerns were raised, including maternal choice, exclusions for the measure, and the need for implementation within a family-centered decision making process. Commenters also encouraged the development of a measure on longer-term breastfeeding. The developers responded that this measure was designed as an in-patient quality measure. The Joint Commission has no means of tracking this post-discharge activity. Much evidence has now focused on the prenatal and intrapartum period as critical for the success of exclusive (or any) breastfeeding. The Committee agrees that measures of continued breastfeeding after hospital discharge are important and this has been added to the measure gaps list.

## 1382: Percentage of low birthweight births

This measure received 4 comments, 2 of which were fully supportive. One comment suggested replacing birthweight with gestational age, as that is now widely available. The fourth comment did not agree with the recommendation for endorsement, noting "this measure has not influenced outcome over the past several years in US", and that "Additional maternal and neonatal info would be necessary to provide any meaningful outcomes." The developer responded [we] agree, gestational age is now a better measure of outcome and should replace this measure. The Committee agrees with the commenter and developer that a measure of gestational age would be a better outcome measure, and this has been added to the measure gaps list. However, since that measure does not currently exist and is not development, the Committee elected to continue to recommend this measure as they agreed it is an important topic.

## 2902: Contraceptive Care - Postpartum

This measure received 25 comments, all supporting the endorsement of the measure. A number of the comments highlighted the gap in contraceptive measures, noting there are no currently endorsed in the NQF portfolio. Several of the comments also noted some concern with the measure, including: the need to ensure women's choices are informed and respected and the need for the balancing measure of woman-reported experience of contraceptive care currently under development; these comments reiterated that the performance should not be 100%. In addition, commenters submitted requests to align the timing for postpartum coverage with other measures of postpartum care and for minor changes to the age range. One commenter stated this is not appropriate for a health plan level measure "given that health care decisions are best made between the providers and their patients"; another noted "that the contraceptive measures as currently specified are most appropriately reported at a population level and are not appropriate for "pay for performance" programs." The developer responded that our intention is to form and convene an Expert Work Group in the interim period to review the use of the measure in various settings (Medicaid, Title X, other programs) and give us advice on what changes may be justified. The reviewer is correct in noting that Medicaid and other health plans that rely on claims-based reporting of the measure would not capture 'free contraception' -- however, this is likely to be a very small number of patients. Programs such as OPA's Title X program that do provide 'free' contraception can adapt the measure to their own data systems so that the 'free' methods are identified. We will consider submitting a Title X adaptation of the contraceptive measure to NQF when we submit for measure maintenance in 3 years. We share the concern that contraceptive care be offered in a client-centered manner. Of note, existing research has shown that method effectiveness is important to many women and, as such, is one of many aspects of client centered care. For example, a recent study showed that nearly 90% of women reported that method effectiveness was an 'extremely important' characteristic (Jackson 2016).

#### 2903: Contraceptive Care - Most & Moderately Effective Methods

This measure received 23 comments. As with measure #2902, the comments were all in favor, but highlighted the importance of ensuring that women are not coerced into using contraceptives and the need for a women-reported contraceptive access measure. In addition, commenters requested the exclusion of women who refuse contraceptives.

## 2904: Contraceptive Care – Access to LARC

This measure received 24 comments. Almost all of the comments were supportive, and many raised similar concerns as with #2902 and #2903. Concerns were raised for this measure, including the fact that some insurers and health systems restrict access to LARC. One comment noted that IUDs and implants require different insertion skills and the measure should differentiate between them. Commenters both agreed and disagreed that this is a measure of access; one noted a concern that it may be misinterpreted and encourage providers to provide LARCs without appropriate counseling.

One comment noted continuing concerns such a measure has the "potential to encourage coercion, which remains an ongoing reality for many, including low-income women, women of color, young women, immigrant women, LGBT people, and incarcerated women. We request that this measure be paired with a woman-reported "balancing measure" of experience of receiving contraceptive care. Such a measure can be expected to help identify and/or check inappropriate pressure from the health care system. We understand that OPA is developing such a measure and encourage its rapid completion and submission for endorsement. We recommend that proposed measure #2904 be held back until the measure of the experience of receiving contraceptive care is in place." The developer responded that for purposes of simplicity and because we did not want to imply one LARC method was preferred over the other, we combined both methods into a single LARC measure. However, there may be benefits to looking at the methods separately in the future as the measure is used more widely, to ensure that women are being given a choice of both IUDs and implants. We will consult with the Expert Work Group that will be considering the measure over the coming years, and welcome additional input. The Committee agreed that the measure developer is making concerted efforts to ensure that the measure not be used for coercion. They reiterated that the benchmark should absolutely not be 100%. The Committee strongly encouraged the developer to continue work on the patient-reported outcome measure of contraceptive care.

## "Consensus Not Reached" Measure

During the in-person meeting and the follow up post-comment call, the Committee did not reach consensus on the validity criterion or overall recommendation for endorsement.

#### 1517: Prenatal & Postpartum Care (PPC)

The measure received 10 comments; 6 were in support, 3 did not support, and 1 did not specify. Many of the comments noted that the quality of the visits is not being assessed and urged NQF to "raise the bar"; comments suggested issues that should be addressed within the visits. Of the comments in support of the measure, urging the Committee to recommend it, commenters noted the importance of the measure in ensuring access to both prenatal and postpartum care, and "it doesn't matter how high the quality of care is if women do not access care early enough to benefit from it". Other comments suggested that holding health systems at least partially responsible for access to prenatal care is crucial, and that to not do so "contradicts national efforts to reduce maternal morbidity and mortality." Noting the lack of measures in this area,

commenters urged the Committee to recommend this measure in the interim while improved measures are developed.

Comments urging the Committee not to recommend the measure noted that the schedule of both prenatal and postpartum visits is based on expert opinion, not evidence, and the content and quality are not evaluated. Several commenters suggested new timeframes, and noted the need for earlier postpartum visits for breastfeeding support or caesarean section wound care as well as the difficulty of gathering this data via billing codes. Commenters and Committee members also recommended splitting the measure into two separate measures, one on prenatal care and one on postpartum care. The developer responded that "We agree that measures addressing the content of perinatal care are needed. We hope to develop better perinatal measures in the future in order to complement this current access/availability of care measure, which we believe is still useful in the meantime. There is variation in recommendations for timing of postpartum visits. Organizations have typically recommended a visit 4-6 weeks post-delivery unless there are specific complications or risk factors. Our advisory panels recommended a 3-8-week timeframe as appropriate for capturing timely postpartum care without inadvertently counting visits for post C-section wound checks, which they concluded did not meet the intent of the measure. ACOG notes that a comprehensive postpartum visit should include a full assessment of physical, social and psychological well-being, with quidance given on issues such as contraception and postpartum concerns. The measure is currently reported as two rates: timeliness of prenatal care and postpartum care. Results for each rate can be viewed separately in order to understand a plan's performance on each."

After the comment period the Committee reviewed the prior discussion and the comment received. The Committee continues to have similar concerns as were discussed at the in-person meeting, including the timeframe, the fact the measure is based on expert consensus, not empirical evidence, and the emphasis on quantity, not content of visits. This was contrasted with the lack of measures in this area, the large gap in performance, the unlikelihood that RCTs will be conducted on this topic, and the fact that if patients are not receiving care, it is definitely poor quality. Despite extensive discussions, the Committee was unable to achieve consensus on their re-votes on either validity (M-11; L-7; I-4) or an overall recommendation for endorsement (Y-10; N-12). The measure will move forward as "consensus not reached" to NQF Member Vote. CSAC will make the final recommendation for or against endorsement.

#### **Not Recommended Measure**

## 2893: Neonatal Intensive Care All-Condition Readmissions

This measure received one comment supporting the measure, but not providing any additional data. The Committee had a number of concerns, including that the measure is specified at the hospital/facility level, but not all of these may be able to track readmissions to other facilities. The measure relies on hospital data linked to vital statistics, which may not be available in all locations. The Committee was concerned that the measure does not account for planned readmissions or planned transfers and does not differentiate between a hospitalization and an observation stay since both are included as readmissions. The Committee agrees this is an important topic for measurement and looks forward to a more fully developed measure.

## **NQF** Member Voting

Information for electronic voting has been sent to NQF Member organization primary contacts. Accompanying comments must be submitted via the online voting tool.

Please note that voting concludes on August 18, 2016 at 6:00 pm ET – no exceptions.

## Perinatal and Reproductive Health 2015 - 2016

DRAFT REPORT FOR **VOTING** 

August 4, 2016



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## Perinatal and Reproductive Health 2015 - 2016

#### DRAFT REPORT

## **Executive Summary**

Despite the fact that the United States spends more on perinatal healthcare than any other health sector (\$111 billion in 2010) the US is ranked 61st in the world for maternal health. In 2014, there were nearly 4 million births in the US. In 2011, of the 7.6 million hospital stays with Medicaid as the primary payer, 29% (or 3 of the top 5 conditions) were related to pregnancy and childbirth: newborn infant, trauma to the perineum and vulva caused by childbirth, and delivery following a Cesarean section. For the 61 million women of reproductive age in the US, access to high-quality care before and between pregnancies, including pregnancy planning, contraception, and preconception care, can reduce the risk of pregnancy-related complications, including maternal and infant mortality.

The National Quality Forum's (NQF) portfolio of measures for Perinatal and Reproductive Health includes measures for reproductive health; pregnancy, labor and delivery; high-risk pregnancy; newborn, premature, or low birthweight newborns; and postpartum patients (see <u>Appendix B</u>).

For this project, the Standing Committee evaluated 9 newly submitted measures and 15 measures undergoing maintenance review against NQF's standard evaluation criteria. 18 measures were recommended for endorsement, the Committee did not reach consensus on 1 measure, and 5 measures were not recommended.

The 18 measures that were recommended by the Standing Committee are:

#### Reproductive health

- 0033 Chlamydia Screening in Women (CHL)
- 2903: Contraceptive Care Most & Moderately Effective Methods
- 2902: Contraceptive Care Postpartum
- 2904: Contraceptive Care Access to LARC (Long Acting Reversible Contraception)

## Labor and Delivery

- 0469: PC-01 Elective Delivery
- 0469:2829: PC-01 Elective Delivery [eMeasure]
- 0470: incidence of Episiotomy
- 0471: PC-02 Cesarean Section

### Labor and Delivery: High-risk pregnancy

0476: PC-03 Antenatal Steroids

#### Newborn

• 0716: Unexpected Complications in Term Newborns

 0475: Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Center Discharge

Newborn: Premature/Low Birthweight

- 1382: Percentage of low birthweight births
- 0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)
- 0478: Neonatal Blood Stream Infection Rate (NQI #3)
- 1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
- 0483: Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity

#### **Postpartum**

- 0480: PC-05 Exclusive Breast Milk Feeding
- 0480:2830: PC-05 Exclusive Breast Milk Feeding [eMeasure]

The Committee did not reach consensus on the following measures:

### Pregnancy

• 1517: Prenatal & Postpartum Care (PPC)

The Committee did not recommend the following measures:

### Pregnancy

• 1391: Frequency of Ongoing Prenatal Care (FPC) – This measure was withdrawn from consideration by the developer after the NQF Member and Public Comment period.

### Labor and Delivery

• 2892: Birthrisk Cesarean Birth Measure

Labor and Delivery: High-risk pregnancy

2896: Structural Attributes of Facility in which High Risk Women Deliver Newborns: A PQMP Measure

Newborn: Premature/Low birthweight

- 2895: Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure
- 2893: Neonatal Intensive Care All-Condition Readmissions

Brief summaries of the measures currently under review are included in the body of the report; detailed summaries of the Committee's discussion and ratings of the criteria for each measure are in Appendix A.

## Introduction

Despite the fact that the US spends more on perinatal healthcare than any other health sector (\$111 billion in 2010)<sup>1</sup> the US is ranked 61st in the world for maternal health.<sup>2</sup> In 2014, there were nearly 4 million births in the US. In 2011, of the 7.6 million hospital stays with Medicaid as the primary payer, 29% (or 3 of the top 5 conditions) were related to pregnancy and childbirth: newborn infant, trauma to the perineum and vulva caused by childbirth, and delivery following a Cesarean section.<sup>3</sup> For the 61 million women of reproductive age in the US, access to high-quality care before and between pregnancies, including pregnancy planning, contraception and preconception care, can reduce the risk of pregnancy-related complications, including maternal and infant mortality.<sup>4</sup>

Disparities in access to quality reproductive and perinatal care and in outcomes among different racial and ethnic groups in the US, as well as sociodemographic disparities, are major topics of interest for quality measurement. Deaths during pregnancy and childbirth have doubled for all US women in the past 20 years. Figures compiled by the Centers for Disease Control and Prevention (CDC) show that black women are nearly four times more likely to die from pregnancy-related causes than white women. Moreover, numerous studies have documented persistent racial, ethnic, and socioeconomic disparities in maternal morbidity and mortality, preterm births, low birthweight infants, access to contraception and reproductive healthcare, and other adverse outcomes.

Research suggests that morbidity and mortality associated with pregnancy and childbirth are largely preventable through adherence to existing evidence-based guidelines. Lower quality care during pregnancy, labor and delivery, and the postpartum period can translate into unnecessary complications, prolonged lengths of stay, costly neonatal intensive care unit (NICU) admissions, and anxiety and suffering for patients and families. However, without appropriate information about performance at a national level, perinatal quality improvement efforts will be unfocused and incentives for improvement limited.

## Trends and Performance

The CDC monitors trends in a variety of perinatal indicators:

- The preterm birth rate fell slightly in 2014 to 9.57% of births, down 8% from the 2007 high.
   Preterm rates declined among most race and Hispanic origin groups during 2007–2014. The
   2014 rate of low birthweight (less than 2,500 grams) was 3% lower than the 2006 high (8.26%).
- Cesarean section rates for low-risk women (same measure as NQF #471) peaked in 2009 at 28.1% and have declined to 26.9% in 2013. The rates were down for more than one-half of states and for all term gestational ages (37 or more completed weeks). The largest decline was at 38 weeks, down 9%. Rates for all maternal age groups and race and Hispanic origin groups were also down. The largest declines were for women under 40 (6%–8%) and for non-Hispanic white women (6%).8

• Women with no previous cesarean delivery who had vaginal deliveries had lower rates for all maternal morbidities compared with those who had cesarean deliveries. Rates per 100,000 of transfusion (525.1) and ICU admission (383.1) were highest for primary cesarean deliveries, while rates of ruptured uterus (88.9) and unplanned hysterectomy (143.1) were highest for repeat cesarean deliveries. Higher rates of maternal morbidity for cesarean compared with vaginal deliveries were found for nearly all maternal age groups and for women of all races and ethnicities.<sup>9</sup>

## National Healthcare Quality and Disparities Report

The 2015 National Healthcare Quality and Disparities Report<sup>10</sup> identified several trends and disparities in the quality of obstetric care:

- From 2001 to 2013, the rate of obstetric trauma associated with instrument-assisted vaginal deliveries fell overall and for all racial/ethnic groups.
- Blacks and Hispanics had lower rates of obstetric trauma associated with instrument-assisted vaginal deliveries than whites did in all years.
- The gap between the Asian or Pacific Islander rate and the white rate was not statistically significant in 2001 but grew larger over time.

# NQF Portfolio of Performance Measures for Perinatal and Reproductive Health

The Perinatal and Reproductive Health Standing Committee (see <u>Appendix D</u>) oversees NQF's portfolio of measures for Perinatal and Reproductive Health that includes measures for reproductive health; pregnancy, labor and delivery; high-risk pregnancy; newborns; postpartum care; and premature or low birthweight neonates (see <u>Appendix B</u>). At the onset of this project, the portfolio contained 23 measures: 14 process measures, 7 outcome measures, and 2 intermediate outcome measures.

**Table 1. NQF Perinatal and Reproductive Health Portfolio of Measures** 

	Process	Outcome	Intermediate Clinical Outcome	Structure	Composite
Reproductive Health	3	0	0	0	0
Pregnancy	3	0	0	0	0
<b>Labor and Delivery</b>	4	1	2	0	0
High-risk	1	0	0	0	0
Pregnancy					
Newborn	1	1	0	0	0
Premature/Low	1	5	0	0	0
Birthweight					

	Process	Outcome	Intermediate Clinical Outcome	Structure	Composite
Postpartum	1	0	0	0	0
Total	14	7	2	0	0

Additional measures related to perinatal and reproductive health are assigned to other projects. These include various diabetes assessment and screening measures (Health and Well-being/Behavioral Health project) and complications and outcomes measures (Surgery project).

## National Quality Strategy

NQF-endorsed measures for perinatal and reproductive health support the <u>National Quality Strategy</u> (<u>NQS</u>). NQS serves as the overarching framework for guiding and aligning public and private efforts across all levels (local, state, and national) to improve the quality of healthcare in the US. The NQS establishes the "triple aim" of better care, affordable care, and healthy people/communities, focusing on six priorities to achieve those aims: *Safety, Person and Family Centered Care, Communication and Care Coordination, Effective Prevention and Treatment of Illness, Best Practices for Healthy Living, and Affordable Care*.

Quality measures for perinatal and reproductive health align with several of the NQS priorities, including:

- Making care safer by reducing harm caused in the delivery of care: Reducing rates of Cesarean births and early elective deliveries reduce the potential harms to mothers and babies.
- Promoting the most effective prevention and treatment practices for the leading causes of mortality:
  - Low birthweight babies have high mortality, morbidity and costs and the declining rate of low birthweight babies reflects improved prevention practices and cost savings.
  - Pregnancy planning and preconception care improve perinatal outcomes. Three new contraception measures will address a gap in this important area of prevention.

#### Use of Measures in the Portfolio

Endorsement of measures by NQF is valued not only because the evaluation process itself is both rigorous and transparent, but also because evaluations are conducted by multi-stakeholder committees comprised of clinicians and other experts from the full range of healthcare providers, employers, health plans, public agencies, community coalitions, and patients—many of whom use measures on a daily basis to ensure better care. Moreover, NQF-endorsed measures undergo routine "maintenance" (i.e., reevaluation) to ensure that they remain the best-available measures and reflect current science. Importantly, federal law requires that preference be given to NQF-endorsed measures for use in federal public reporting and performance-based payment programs. NQF-endorsed measures also are used by a variety of stakeholders in the private sector, including hospitals, health plans, and communities.

Many of the measures in the perinatal and reproductive health portfolio are in use in at least one federal program. Additionally, several of the reproductive health, pregnancy, labor and delivery, and premature/low birthweight measures have been included in the Medicaid Adult and Child Core Set by the NQF-convened Measure Applications Partnership (MAP). <u>Appendix C</u> provides details of federal programs that currently use NQF-endorsed perinatal measures.

## Improving NQF's Perinatal and Reproductive Health Portfolio

## Committee Input on Gaps in the Portfolio

Many priorities for quality measurement and improvement do not yet have metrics available to address them, and the gaps for perinatal and reproductive health are even greater. During the Perinatal and Reproductive Health Standing Committee discussions, the Committee identified numerous areas where additional measure development is needed. -During the 30-day public commenting period, many commenters noted the lack of measures for perinatal and reproductive healthcare and suggested specific areas for measure development. One commenter suggested endorsement of eMeasure versions for all endorsed measures. The Committee agreed the additional measure gaps identified by commenters should be incorporated into the list of gaps for perinatal and reproductive health.

## Reproductive health

- Preconception care measures as a subset of women's health, taking existing preventive measures and creating either a formal or an informal preconception measure set
- Measures to track whether women were screened for pregnancy intention and desire to use a
   contraceptive measure and patient-reported experience of contraceptive care composite
   measure that captures whether women felt respected, whether they were informed, and
   whether they experienced shared decision making
- Chlamydia screening measures for men

## **Pregnancy and prenatal care**

- Prenatal care measures that <u>assess quality and</u> are meaningful and demand higher performance, <u>including c</u>ounseling <u>for</u> nutrition, weight gain, <u>self-care</u>; <u>HIV testing (at entry to prenatal care)</u>; <u>risk screening and management for behavioral risks, depression, intimate partner violence or domestic violence, opioid use; assessment of gestational age; and timeliness of care.
  </u>
- Measures for gestational diabetes management and documentation of maternal treatment and infant prophylaxis with anti-HIV medication;
- Measures related to care for women who do not need extensive intervention;
- Measures for care of women with unintended pregnancy including options for abortion care and measures related to the access and availability of abortion care including medication abortion, and post-abortion access to contraceptives and contraceptive counseling.

#### **Labor and delivery**

Measure of the availability and rate of vaginal birth after cesarean (VBAC);
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- Measures indicating whether women have access to a choice among pharmacologic and nonpharmacologic methods of comfort and pain relief and support for their methods of choice;
- Measures of many underused evidence-based intrapartum care practices, including: guidance
  on delaying admission to active labor, use of intermittent auscultation, access to and use of tubs
  and showers, support for being upright and moving about in labor, use of non-supine positions
  for giving birth, and early maternal-newborn skin-to-skin contact;
- Risk-adjusted measures for all Cesarean births;
- CAHPS Maternity adaptations of CAHPS facility, clinician/group and health plan experience of care surveys for maternal-newborn care

## Over/Appropriate use measures

- Overuse of procedures such as induction of labor
- Access to care at the appropriate level

## Postpartum care

Postpartum care measures that are meaningful and that demand higher performance <u>including</u> timeliness of care, measures examining outcomes and rates of longer-term breastfeeding, measures of maternal depression screening, referral and treatment; and measures of <u>intrapartum nursing care of childbearing women and newborns.</u>

#### **Outcome measures**

- Patient-centered outcome measures that include women's perspective of their own pregnancy care <u>such as a composite woman-reported measure of outcomes of the full episode of maternity</u> <u>care collected at about six weeks postpartum;</u>
- Maternal morbidity measures
- Neonatal readmissions at the health plan level of analysis

#### Person and family-centered care

- Measures of culturally sensitive care, or care that accords with the women's desires and measures of shared decision making and care coordination across all phases of maternity care
- Measures at the clinician and group level for prenatal, intrapartum and postpartum phases of maternity care, including those that align with existing measures at facility, health plan and other levels
- Measures that can evaluate the impact of different payment and care delivery models on women's reproductive health

Measure Application Partnership (MAP): Reproductive Health Measure Gaps in the Medicaid Adult and Child Core Sets

Reproductive health is the most frequently measured topic across the Medicaid Child and Adult Core Sets, and MAP's 2015 recommendations would expand these measures even further. Measures of contraceptive access and use gained strong, albeit conditional, support from MAP because of the robust

and growing evidence that well-timed, intentional pregnancies are associated with better health outcomes for both the mother and the infant. Additionally, there is significant opportunity for improvement and cost effectiveness in this area. For example, eleven states have made specific policy changes to encourage placement of long-acting reversible contraception immediately postpartum, with the potential for other states to follow.

MAP also identified specific gaps in current perinatal and reproductive health measure sets intended to communicate MAP's vision for the future of perinatal and reproductive health measurement.

- Inter-conception care to address risk factors
- Poor birth outcomes (e.g. premature birth)
- Postpartum complications
- Support with breastfeeding after hospitalization

## **Perinatal and Reproductive Health Measure Evaluation**

On May 2-3, 2016, the Perinatal and Reproductive Health Standing Committee evaluated 9 new measures and 15 measures undergoing maintenance review against NQF's standard evaluation criteria. To begin the evaluation process, the Committee met via conference call in four smaller workgroups to conduct preliminary reviews of the measures against the evaluation criteria.

## Comments Received Prior to Committee Evaluation

NQF solicits comments on endorsed measures on an ongoing basis through the <u>Quality Positioning</u> <u>System (QPS)</u>. In addition, NQF solicits comments prior to the evaluation of measures via an online tool located on the project webpage. For this evaluation cycle, the pre-evaluation comment period was open from March 22-April 5, 2016, for all 24 of the measures under review. A total of 7 pre-evaluation comments were received (<u>Appendix G</u>).

All submitted comments were provided to the Committee prior to its initial deliberations during the workgroups calls.

## Refining the NQF Measure Evaluation Process

To streamline and improve the periodic evaluation of currently endorsed measures, NQF has updated guidance for the evaluation of measures for maintenance of endorsement effective October 1, 2015. NQF's endorsement criteria have not changed, and all measures continue to be evaluated using the same criteria. However, under the new approach, there is a shift in emphasis for evaluation of currently endorsed measures:

• **Evidence:** If the developer attests that the evidence for a measure has not changed since its previous endorsement evaluation, there is a decreased emphasis on evidence, meaning that the Committee may accept the prior evaluation of this criterion without further discussion or need for a vote. This applies only to measures that previously passed the evidence criterion without

- an exception. If a measure was granted an evidence exception, the evidence for that measure must be revisited.
- Opportunity for Improvement (Gap): For re-evaluation of endorsed measures, there is
  increased emphasis on current performance and opportunity for improvement. Endorsed
  measures that are "topped out" with little opportunity for further improvement are eligible for
  Inactive Endorsement with Reserve Status.

#### Reliability

- o Specifications: There is no change in the evaluation of the current specifications.
- Testing: If the developer has not presented additional testing information, the Committee may accept the prior evaluation of the testing results without further discussion or need for a vote.
- Validity: There is less emphasis on this criterion if the developer has presented no additional
  testing information, and the Committee may accept the prior evaluation of this sub-criterion
  without further discussion and vote. However, the Committee still considers whether the
  specifications are consistent with the evidence. Also, for outcome measures, the Committee
  discusses questions required for the SDS Trial even if no change in testing is presented.
- **Feasibility:** The emphasis on this criterion is the same for both new and previously endorsed measures, since feasibility issues might have arisen as endorsed measures have been implemented.
- Usability and Use: For re-evaluation of endorsed measures, there is increased emphasis on the
  use of the measure, especially use for accountability purposes. There also is an increased
  emphasis on improvement in results over time and on unexpected findings, both positive and
  negative.

#### **Committee Evaluation**

Of the 9 new measures and 15 measures undergoing maintenance of endorsement considered by the Committee at its May 2-3, 2016 meeting, 18 were recommended for endorsement, the Committee did not reach consensus on 1 measure, and 5 measures were not recommended. Table 2 summarizes the results of the Committee's evaluation.

**Table 2. Perinatal and Reproductive Health Measure Evaluation Summary** 

	Maintenance	New	Total
Measures under consideration	15	9	24
Measures recommended for endorsement	13	5	18
Measures where consensus is not yet reached	1	0	1
Measures not recommended for endorsement	1	4	5
Measures withdrawn from consideration	<u>7</u>		7

	Maintenance	New	Total
Reasons for not recommending	Importance – 1	Importance – 2	
	Scientific Acceptability – 0	Scientific Acceptability –1	
	Overall – 0	Overall – 1	
	Competing Measure – 0	Competing Measure – 0	

## **Overarching Issues**

During the Standing Committee's discussion of the measures, several overarching issues emerged that were factored into the Committee's ratings and recommendations for multiple measures.

## Competing measures of neonatal infection

The Committee determined that 3 similar measures of neonatal infection all met NQF's criteria and were recommended for endorsement – measures #0307, #0478 and #1731. The Committee strongly agreed that these multiple measures were burdensome for hospitals and looked to the developers to create a single measure. Ultimately, the Committee agreed that, for the time being, all three measures should remain endorsed for the following reasons:

- planned changes in the specifications of measure #0478 to achieve further harmonization;
- update of specifications to ICD-10 CM codes and the lack of information regarding the effect of revised coding on the measures;
- the population of hospitals reporting on measure #1731 was much larger this year the greater experience will provide more information on the usefulness of the measure; and
- the need for data to compare the slightly different populations captured in each measure.

Given concerns about measurement burden, the Committee directed the developers to work together to arrive at a single measure with supporting data in 18 months for the Committee to consider during an off-cycle review.

Additionally, the Committee noted that the majority of babies born are larger babies that also develop infections but at a lower rate compared to the premature babies, so measures that focus only on the smaller babies miss the opportunity to improve processes and reduce infections in many facilities that do not care for very low birthweight babies. Full details of the Committee discussion are in Appendix A.

## Need for "balancing" measures

The Committee noted a potential concern that some measures may have unintended consequences that can be addressed by a "balancing measure" that would identify potential unintended effects. Balancing measures ensure that changes made in response to one measure are not worsening outcomes in another area. For example, a decrease in Cesarean sections, which is intended to be a positive outcome, should not increase compromised newborns or stillbirths.

## Measures for normal pregnancies

Many of the measures under review focused on high-risk mothers or babies, yet the vast majority of pregnancies, deliveries, and newborns are not high-risk. Committee members noted the need for measures that assess normal, healthy pregnancies and babies, in part to assess and improve the quality of care that most patients and families are receiving, and in part to ensure that the majority of the population is not excluded from quality improvement and measurement.

## Impact of ICD-10 CM coding

The maintenance measures in this project were all recently updated to ICD-10 CM codes and performance data using ICD-10 CM coding is not yet available. Committee members were hopeful that the new codes would improve accuracy and ease of reporting; however, without data, concerns remain over the accuracy, burden, gap, and actual performance of many of the measures.

## *Need for better measures*

Since NQF's 2012 Perinatal project, Committee members noted that the measurement world has changed dramatically. While all of the measures evaluated had some opportunity for improvement, they highlighted the need for measures that "raise the bar" to further improve care and demand a higher level of performance. In addition, they noted a need for more measures of outcomes that matter to patients and families.

## **Summary of Measure Evaluation**

The following brief summaries of the measure evaluations (organized by sub-topic area) highlight the major issues that were considered by the Committee. Details of the Committee's discussion and ratings of the criteria for each measure are included in <u>Appendix A</u>.

### Reproductive Health

# 0033 Chlamydia Screening in Women (CHL) (National Committee for Quality Assurance): RECOMMENDED

**Description**: The percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year. **Measure Type**: Process; **Level of Analysis**: Health Plan, Integrated Delivery System; **Setting of Care**: Ambulatory Care: Clinician Office/Clinic; **Data Source**: Administrative claims, Electronic Clinical Data, Electronic Clinical Data: Imaging/Diagnostic Study, Electronic Clinical Data: Laboratory, Electronic Clinical Data: Pharmacy

This measure assesses the percentage of sexually active women 16–24 years of age who had at least one test for chlamydia during the measurement year. This longstanding HEDIS measure appears in both Medicaid Adult and Child Core Sets, with different age groups reported in each one. The Committee agreed that the underlying evidence continues to be sufficient despite a reduction to Grade B by the US Preventive Services Task Force (USPSTF). The Committee expressed concerns about the exclusive focus on women and the unintended consequences of not including men in this measure. The Committee

highlighted that the USPSTF recommendation acknowledged the importance of men in this population, citing extensively the CDC recommendations in screening and treating men, but recognized the limitation of current data. The Committee noted that even though the developer presents evidence from the literature that describes racial/ethnic differences in screening rates (higher in African-Americans and Hispanics) and prevalence of the disease (higher in African-Americans and Mexican-Americans), the developer did not collect performance data stratified by race, ethnicity, or language.

The Committee noted that this measure may be affected by the new Pap smear screening guidelines that reduce patient visits and may also reduce opportunities for chlamydia screening. The Committee suggested the two measures – cervical cancer screening and chlamydia screening - be monitored together. The Committee questioned how this measure would account for transgender individuals and females between 16 and 24 years who are using contraception for non-contraceptive benefits. The developer clarified that teenagers sometimes state that they are using oral contraceptives for non-contraceptive reasons, but because of confidentiality and privacy concerns, may not disclose that they are sexually active. Overall, the Committee agreed the measure meets the NQF criteria and recommended NQF #0033 for continued endorsement.

# 2903 Contraceptive Care – Most & Moderately Effective Methods (US Office of Population Affairs): RECOMMENDED

**Description**: The percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS) or moderately effective (i.e., injectables, oral pills, patch, ring, or diaphragm) FDA-approved method of contraception. The proposed measure is an intermediate outcome measure because it represents a decision that is made at the end of a clinical encounter about the type of contraceptive method a woman will use, and because of the strong association between type of contraceptive method used and risk of unintended pregnancy. **Measure Type**: Intermediate Clinical Outcome; **Level of Analysis**: Facility, Health Plan, Population: Regional, Population: State; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims.

This new measure assesses the percentage of women at risk of unintended pregnancy who are provided a method of contraception considered either "most effective" or "moderately effective." Contraceptive care is important because it prevents teen and unintended pregnancy and improves birth spacing. The developer classifies this measure as an intermediate outcome measure because it reflects a decision after a discussion between the provider and client/patient. The use of those methods considered "moderately" or "most" effective is strongly associated with reduced risk of unintended pregnancy. Contraceptive access and use is important because of the robust and growing evidence that well-timed, intentional pregnancies are associated with better health outcomes for both the mother and the infant. The Committee noted that although a high percentage of women will choose one of the "most" or "moderately" effective methods, some women will choose other less effective methods – a choice that must be respected – so the goal for this measure is not 100%. The goal is to see improvement over time NATIONAL QUALITY FORUM

NQF REVIEW DRAFT—NQF Member Votes due August 18 2016 by 6:00 PM ET.

rather than a specific target. The Committee discussed the fact that only 24 states have full access to contraception for teenagers and access to certain methods is limited by payers. The measure is intended to be used by plans, systems and family planning programs such as the federal Title X program. The measure has been extensively piloted by 2 state Medicaid programs and is being reported by 13 state Medicaid programs. Those Medicaid programs are funded by the Center for Medicaid and Children's Health Insurance Program (CHIP) Services (CMCS) and the measures are being reported from 2015-2018 as part of the Maternal and Infant Health initiative.

The developer and Committee discussed at length the concern of potential coercion of patients. The developer noted that CDC-OPA (Office of Population Affairs) recommendations describe in detail how to provide client-centered, non-coercive contraceptive counseling, and efforts to support use of the measure should be accompanied by efforts to increase awareness of the CDC-OPA recommendations (CDC/OPA 2014). Further, OPA has funded the development of training on how to provide client-centered training, which is available to all providers on the OPA-supported training website (www.fpntc.org).

This measure is based on administrative data that cannot determine a woman's desire for pregnancy, and the Committee welcomed the developer's plan to develop an electronic or hybrid measure in the near future. To estimate the number of women at risk for pregnancy within a plan or system, data from the National Survey of Family Growth (NSFG) can be used to <u>adjust interpret</u> the measure rates. The Committee recommended this measure because of its importance to women's health.

## 2904 Contraceptive Care - Access to LARC (US Office of Population Affairs): RECOMMENDED

**Description**: Percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a long-acting reversible method of contraception (i.e., implants, intrauterine devices or systems (IUD/IUS). It is an access measure because it is intended to identify situations in which women do not have access to the long-acting reversible methods of contraception (LARC), i.e., contraceptive implants and intrauterine devices. **Measure Type**: Structure; **Level of Analysis**: Facility, Health Plan; Population: Regional; Population: State; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims

The new measure is a subset of measure #2903 Contraceptive Care – Most & Moderately Effective Methods but is quite different because it is focused on access to long-acting reversible contraceptive methods (LARCs) -- IUDs and contraceptive implants. Availability of LARCs is variable and depends on payer coverage and availability of trained providers. The measure encourages health systems to look at reporting units with very low rates of provision of LARC to identify unnecessary barriers to LARCs. A low rate indicates a lack of availability or access to LARCs. The Committee agreed that, while there are a few issues specific to LARCs as a form of contraception (including side effects particular to these contraceptive) the overarching issues surrounding the evidence were addressed in the discussion of NQF #2903: Contraceptive Care – Most & Moderately Effective Methods.

This measure is used to identify women who do not have access to LARCs. The Committee discussed the use of the population denominator versus the encounters as the denominator. The developer explained that the reason they chose the population versus the encounter was because provision of the contraceptive is not always readily attributed to just one encounter or one type of provider. The Committee noted that this measure provides a good metric for access, not necessarily quality, since there are many different factors that contribute to provider quality of care. The Committee expressed serious concerns about coercive practices in which women are not offered a complete choice of methods and are pressured into using a LARC method. The developer stated that coercison is unlikely because the focus is on ensuring access to these methods by monitoring very low or zero rates (well below the median) and the measure is not intended to be used for benchmarking. Ultimately, the Committee agreed the measure meets the NQF criteria and recommended NQF #2904 for continued endorsement.

## 2902 Contraceptive Care - Postpartum (US Office of Population Affairs): RECOMMENDED

**Description**: Among women ages 15 through 44 who had a live birth, the percentage that is provided:

- 1) A most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS) or moderately (i.e., injectables, oral pills, patch, ring, or diaphragm) effective method of contraception within 3 and 60 days of delivery.
- 2) A long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery. Two time periods are proposed (i.e., within 3 and within 60 days of delivery) because each reflects important clinical recommendations from the U.S. Centers for Disease Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG). The 60 day period reflects ACOG recommendations that women should receive contraceptive care at the 6 week postpartum visit. The 3 day period reflects CDC and ACOG recommendations that the immediate postpartum period (i.e., at delivery, while the woman is in the hospital) is a safe time to provide contraception, which may offer greater convenience to the client and avoid missed opportunities to provide contraceptive care.

  Measure Type: Intermediate Clinical Outcome; Level of Analysis: Health Plan, Population: Regional;

Measure Type: Intermediate Clinical Outcome; Level of Analysis: Health Plan, Population: Region Setting of Care: Hospital/Acute Care Facility; Data Source: Administrative claims

This new intermediate outcome measure assesses the percentage of women provided a "most" or "moderately" effective method of contraceptive or a long-acting reversible method of contraception (LARC) after childbirth. Contraceptive care for postpartum women is important to facilitate birth spacing and this measure identifies women more clearly at risk for pregnancy. Two separate time periods are measured: the 60-day period reflects ACOG recommendations that women should receive contraceptive care at the 6-week postpartum visit; and the 3-day period reflects CDC and ACOG recommendations that the immediate postpartum period (at delivery, while the woman is in the hospital) is a safe time to provide contraception, which may offer greater convenience and avoid missed opportunities to provide contraceptive care. Eleven states have made specific policy changes to encourage placement of LARC immediately postpartum, with the potential for other states to follow these policy changes. The Committee agreed that patient choice must be respected thus 100% is not an appropriate target.

## **Pregnancy**

## 1517 Prenatal & Postpartum Care (PPC) (National Committee for Quality Assurance): CONSENSUS NOT REACHED

**Description**: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care:

Rate 1: Timeliness of Prenatal Care. The percentage of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization.

Rate 2: Postpartum Care. The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery. Measure Type: Process; Level of Analysis: Health Plan, Integrated Delivery System; Setting of Care: Ambulatory Care: Clinician Office/Clinic; Data Source: Administrative claims, Electronic Clinical Data, Paper Medical Records

This health plan measure was originally endorsed in 2011 and is currently used in programs for both health plan and state reporting. This measure assesses prenatal and postpartum visits but not the content of those visits. The Committee agreed that ACOG guidelines recommend a schedule of prenatal visits that are based primarily on expert consensus-opinion rather than empirical evidence. The Committee acknowledged that while data shows that patients who have no prenatal care have worse outcomes, there is no evidence for the timing of visits. The Committee invoked the exception to the evidence criterion and agreed that empirical evidence is not needed to hold providers accountable for the measure. The Committee also noted performance for prenatal care was about the same for Medicaid and commercial plans at 80-85%, but postpartum visits are lower for both: commercial plans reporting 73-76% and Medicaid plans reporting 61-63%.

The Committee noted that early post-partum care before 21 days may be important for wound care, breastfeeding support, depression screening, follow-up of blood pressure, and contraception. The Committee noted that women also are being seen for depression screening and breastfeeding support during their babies' pediatric visits. The Committee expressed concerns about the validity of the measure, noting the limited number of codes and the fact that the measure is not addressing the content of the visits. The Committee also identified concerns with the Usabilty and Use criteria because the measure potentially discourages earlier postpartum care and it is unclear whether quality is improving. Overall, the Committee did not reach consensus on the suitability for continued endorsement of NQF #1517. Despite significant concerns, several Committee members were reluctant to remove endorsement until better measures for prenatal care are available.

<u>During the NQF Member and public comment period, this measure received 10 comments: 6 supported endorsement, 3 did not support endorsement, and 1 did not specify. During the post-comment call, the Committee continued to have similar concerns as were discussed at the in-person meeting, including the timeframe; the fact the measure is based on expert consensus, not empirical evidence; and the</u>

emphasis on quantity, not content of visits. These concerns were contrasted with the lack of existing measures in this area or any in the measure development pipeline; the large gap in performance; the unlikelihood that RCTs will be conducted on this topic; and the fact that if patients are not receiving care, it is definitely poor quality. Despite extensive discussion, the Committee was again unable to achieve consensus on their revotes on either validity or an overall recommendation. The measure will move forward as "consensus not reached" to NQF Member Vote. CSAC will make the final recommendation for or against endorsement.

# 1391 Frequency of Ongoing Prenatal Care (FPC) (National Committee for Quality Assurance): NOT RECOMMENDED WITHDRAWN

**Description**: The percentage of Medicaid deliveries that had the following number of expected prenatal visits:

- less than 21 percent of expected visits.
- 21 percent–40 percent of expected visits.
- 41 percent–60 percent of expected visits.
- 61 percent-80 percent of expected visits.
- greater than or equal to 81 percent of expected visits.

Measure Type: Process; Level of Analysis: Health Plan, Integrated Delivery System; Setting of Care: Ambulatory Care: Clinician Office/Clinic; Data Source: Administrative claims, Electronic Clinical Data, Paper Medical Records

This health plan measure was originally endorsed in 2011 and is used in programs for both Medicaid plans and state reporting. The Committee agreed that ACOG guidelines recommend a schedule of prenatal visits that are based primarily on expert consensus. The Committee adds that there is no empirical evidence for the visit schedule or that the number of visits is associated with improvement in outcomes for mothers and babies. The measure is considered a "proxy for access"; however, it does not assess the capacity of a plan to provide prenatal care, but rather the measure reflects the challenges women face such in accessing care, such as taking time off work, transportation, and childcare. The Committee emphasized that frequency does not equal quality and that this measure inhibits innovative strategies and new models of care delivery. Overall, the Committee agreed the measure did not meet the Evidence criterion and did not recommend NQF #1391 for continued endorsement.

After the NQF Member and Public Comment period, the developer withdrew this measure from consideration of endorsement. Endorsement will be removed from this measure.

## Labor and Delivery

#### 0469 PC-01 Elective Delivery (The Joint Commission): RECOMMENDED

**Description**: This measure assesses patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Birth, PC-03: Antenatal Steroids,

PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding); **Measure Type**: Process; **Level of Analysis**: Facility, Population: National; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Electronic Clinical Data, Paper Medical Records

This endorsed, facility-level measure assesses the number of infants delivered electively between 37 weeks and 38 weeks and 6 days gestation, providing an assessment of providers' adherence to the American College of Obstetricians and Gynecologists (ACOG) guidelines restricting elective delivery (i.e., deliveries without maternal or fetal indication for delivery before the onset of spontaneous labor) prior to 39 completed weeks' gestation. Evidence shows that early elective, non-medically indicated delivery carries increased risks for the newborn and new evidence shows that reducing the number of elective deliveries before 39 weeks does not increase the rate of stillbirths. Data from The Joint Commission (TJC) shows a decline in performance from 13.6% in 166 hospitals in 2011 to 3.3% in 1,388 hospitals in 2014. The developer reported that the greatest decline is for repeat Cesarean births at 37 weeks. In 2016, an additional 821 hospitals are required to report this measure. The Committee agreed with the developer that the goal is not to reach zero elective deliveries, as there will always be circumstances for which an early elective delivery is appropriate. Some Committee members suggested that the measure is approaching that limit at 3% and there may be little room for further improvement though most agreed that further measurement is needed to assure high levels of performance will continue.

The Committee noted that not all agree with the appropriateness of some exclusions and that inappropriate use of the exclusion codes occurs. Some Committee members expressed concern with the lack of reduction in NICU admissions and Cesarean births that, according to the evidence, should occur with the significant decline in early elective deliveries. The developer notes that National Center for Health Statistics data demonstrates overall reduction in deliveries at 37 and 38 weeks. Some updates were made to the measure specifications, including a check for the presence of labor and a new data element for prior uterine surgery as well as additional codes for exclusions. The Committee noted that it is not yet clear how the change to ICD-10 may affect the reliability. The Committee noted that it is very easy for the public to understand this measure and it is effective in capturing attention of policymakers. The Committee unanimously recommended measure #0469 for continued endorsement.

## 0469:2829 [eMeasure] PC-01 Elective Delivery (The Joint Commission): RECOMMENDED

**Description**: This measure assesses patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). PC-01, Elective Delivery is one of two of the measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program. **Measure Type**: Process; **Level of Analysis**: Facility, Population: National; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record; Electronic Clinical Data: Pharmacy

This is the new eMeasure version of measure *0469: PC-01 Elective Delivery*. The information on evidence and opportunity for improvement is the same as measure #0469. NQF's technical review found this eMeasure to have appropriate specifications and value sets, and an adequate feasibility assessment that addressed the data elements and measure logic. The Committee found the results of the BONNIE testing in a simulated data set provided by the developers acceptable. The developer reported that 7 healthcare organizations reported this eMeasure to The Joint Commission in 2015 and 69 healthcare organizations will be reporting the eMeasure in 2016.

## 0470 Incidence of Episiotomy (National Perinatal Information Center): RECOMMENDED

**Description**: Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed. **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims, Paper Medical Records

This measure of overuse has been endorsed since 2008. Episiotomy is associated with increased perineal trauma and subsequent pain, sexual dysfunction, and anal incontinence, without evidence of benefit. While there has been a significant decrease in episiotomies overall, there continues to be considerable variation among facilities. Data from 63 hospitals reporting to the National Perinatal Information Center (NPIC) found results ranging from 0.8 – 22.1% in 2014. Committee members reported fewer 3<sup>rd</sup> and 4<sup>th</sup> degree lacerations in their facilities when episiotomy rates declined. Several Committee members shared their experiences using clinician-level measure results and peer-to-peer education to effectively change behaviors in their institutions but agreed that the measure is best used at the facility level for accountability. Committee members noted that conversion to ICD-10 CM will address some coding issues, and that the procedure is easy to code. The Leapfrog Group is publicly reporting this measure for nearly 1,000 hospitals. The Committee unanimously recommended this measure for continued endorsement.

#### 0471 PC-02 Cesarean Birth (The Joint Commission): RECOMMENDED

**Description**: This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean birth. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). **Measure Type**: Outcome; **Level of Analysis**: Facility, Population: National; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Paper Medical Records

This measure assesses the rate of Cesarean births in a subset of pregnant women thought to be at low-risk for an operative delivery. ACOG has said that this is the "optimal measure" for Cesarean birth because it focuses on first-time, uncomplicated pregnancy and assesses the outcome of labor management. The Committee compared the Healthy People 2020 target of 23.9% and the 2014 mean

result of 26.8% for 1,388 hospitals reporting to The Joint Commission. The variation among hospitals is still quite large (10<sup>th</sup> percentile is 17.6% and the 90<sup>th</sup> percentile is 36.3%) and disparities exist (African Americans have higher Cesarean birth rates). The Committee cautioned that tying payment to a specific target value, such as 23.9%, might lead to poor outcomes.

The developer has revised the measure to remove the age stratification\_after consodering data from California amnd MAssachusettes that demonstrated lack of effect of age on hospital performance. The Committee discussed, at length, the possible need for additional risk adjustment. Some Committee members reported personal\_data that varied in terms of whether additional risk factors affected the Cesarean birth rate. The developer stated that exclusion for clinical trials is no longer in the measure. The Committee pointed out that this Cesarean birth measure needs a balancing measure, such as NQF #0716 Unexpected Complications in the Term Newborn, to monitor potential unintended consequences during efforts to reduce the Cesarean birth rate. Committee members noted that ACOG and the Society for Maternal and Fetal Medicine (SMFM) use this Cesarean birth measure. In response to questions about plans for publicly reporting measure results, the developer noted that they are working out details for public reporting but specific dates are not available. The Committee suggested that the brief measure title may be misleading and a more descriptive title would be helpful for audiences such as "NTSV Csearean birth."

This measure received 25 comments during the post comment period. Of these, 7 organizations supported the Committee's recommendation, noting continued disparities in care, the risks associated with cesarean sections, and evidence-based processes to reduce Cesarean birth rates safely. The measure received 17 comments from 11 individuals disagreeing with the Committee's recommendation of the measure. The concerns raised focused on two issues: the lack of risk adjustment in the measure and concerns over the Healthy People 2020 target rate of 23.9%. While this target rate was not set by the measure developer or by NQF, a number of commenters indicated that without risk adjustment, this may not be an appropriate target. During the post-comment call, the Committee noted that the target rate is set by Health People 2010 and therefore is not in the control of either the developer or NQF. The Committee agreed they did not have any concerns with the measure as it is specified without the age adjustment. Committee members noted that measure #0716, Unexpected Complications in Term Newborn, is a balancing measure that could provide a signal for overzealous reductions in e-section Cesarean birth rates.

## 2892 Birthrisk Cesarean Birth Measure (Birthrisk.com, LLC.): NOT RECOMMENDED

**Description**: This is a measure of the effect that obstetrical care provider's labor management strategies have on their laboring patient's risk for cesarean birth. The target population is limited to women who attempt labor with a singleton vertex pregnancy without a history of a prior cesarean birth and give birth between 37 and 42 weeks of gestation. **Measure Type**: Outcome; **Level of Analysis**: Facility, Clinician: Individual; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Other

This new measure uses a different approach to measuring Cesarean birth rates than #0471-that includes all mothers undergoing labor, i.e., not limited to first time mothers and excludes elective repeat Cesarean births. The Committee had no reference data to evaluate the results calculated by the developer using birth certificate data from New York State in 2005-2007. Committee members indicated that many of the birth certificate data fields used in this measure, such as previous Cesarean birth, induction of labor and attempt of labor, are known to be unreliable. This hospital- and clinician-level measure also uses a fee-based, proprietary method of risk adjustment using cohort comparisons. Committee members were unfamiliar with this methodology and found the information provided to be inadequate to understand the data presented. The developer notes that efforts to have the method published have been unsuccessful. Given concerns regarding the proprietary nature of the risk adjustment method and the use of 10-year-old data, the Committee did not recommend this measure for endorsement.

## Labor and Delivery: High-risk Pregnancy

## 0476 PC-03 Antenatal Steroids (The Joint Commission): RECOMMENDED

**Description**: This measure assesses patients at risk of preterm delivery at >=24 and <34 weeks gestation receiving antenatal steroids prior to delivering preterm newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). **Measure Type**: Process; **Level of Analysis**: Facility, Population: National; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Paper Medical Records

This measure has been endorsed since 2008. Steroids are given to mothers at risk of premature delivery to improve the lung function of premature newborns. The measure has been changed to capture initiation of antenatal steroids rather than "antenatal steroids administered." The developers found that if the first dose of steroids is given, then the follow-up doses are also given and this change reduces the burden of data collection. In response to the 2013 ACOG Practice Bulletin on Premature Rupture of Membranes (PROM), the developer expanded the denominator to include patients delivering live preterm newborns up to 34 weeks. The updates to the measure allow for data collection from medical records, vital records, delivery logs and clinical information systems as acceptable data sources to help hospitals identify all cases 24 - 34 weeks of gestation.

The Committee was advised that the exclusion for clinical trials has been removed. Committee members expressed concern that the exclusion for "documented reason" is too readily used and will result in a premature newborn not receiving the benefits of steroid therapy. Committee members also noted that giving mothers with hypertension and diabetes that need immediate delivery may be harmed by waiting the 48 hours for full benefit of the steroids prior to delivery. Although hospitals with lower delivery volumes will be required to report on this measure, it is unlikely to capture many more cases because

these high-risk patients are generally cared for in hospitals with higher volumes. This measure is included in the Medicaid Adult Core Set of measures.

# 2896 Structural Attributes of Facility in which High Risk Women Deliver Newborns: A PQMP Measure (Collaboration for Pediatric Quality Measures (CAPQuaM)): NOT RECOMMENDED

**Description**: This measure characterizes the facility that is the site of delivery of newborn infants born to high risk women by four key structural characteristics. These four characteristics were identified as critical structures by a national expert panel who served CAPQuaM's 360 degree process for measure development. This work was undertaken in the context of developing innovative measures of the availability of High Risk Obstetrical (HROB) care as assigned by AHRQ and CMS. The four key structures are:

- (a) Level 3 or higher NICU services on campus. Level 3 NICU is defined as meeting either the American Academy of Pediatrics (AAP) criteria or a locally used set of explicit criteria recognized by that state's Department of Health.
- (b) 24/7 on-site blood banking services/transfusion services that are always available for obstetrical patients. By 24/7 blood banking/transfusion services we mean that the following are always available to obstetrical patients: testing of blood group and Rh Type; cross matching; antibody testing; transfusion with on-site and available blood, either ABO specified or O-Rh-negative; transfusion with fresh frozen plasma; and transfusion with cryoprecipitate.
- (c) 24/7 in house physician dedicated to labor and delivery who is capable of safely managing labor and delivery, and of performing a cesarean section, including an emergent cesarean section.
- (d) 24/7 in house physician coverage dedicated to the obstetrical service by an anesthesiologist who is qualified to provide obstetrical anesthesia. **Measure Type**: Composite; **Level of Analysis**: Population: Community, Population: County or City, Health Plan, Integrated Delivery System, Population: National, Population: Regional, Population: State; **Setting of Care**: Hospital/Acute Care Facility, Other; **Data Source**: Administrative claims, Healthcare Provider Survey

This new composite measure includes 4 components of care delivery for high-risk mothers. The Committee did not agree that this is a measure of quality or accountability for providers. The evidence provided for the 4 components is expert opinion, not empirical evidence. The Committee noted that the information may be important as a designation of care provision. The developers stated that this is a "population measure de-linked from individual patient care" and "the measure does not make a distinction between good care and bad care." The Committee also noted that the measure includes mothers with birth complications that are mostly unpredictable and patients cannot always be transferred to a different facility after birth. The developer presented no measure results for any plans or systems. The Committee agreed that directing high-risk mothers and high-risk babies to facilities most capable of caring for them may impact outcomes; however, the Committee agreed this measure needs further development to become an accountability measure.

## Newborn

# 0716 Unexpected Complications in Term Newborns (California Maternal Quality Care Collaborative): RECOMMENDED

**Description**: This is a hospital level performance score reported as the percent of infants with Unexpected Newborn Complications among full term newborns with no preexisting conditions, typically calculated per year. **Measure Type**: Outcome; **Level of Analysis**: Facility, Integrated Delivery System, Population: Regional, Population: State; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims

This measure was originally endorsed as #0716 Healthy Term Newborn in 2012. The developer has since inverted the measure to report on the unexpected outcomes for healthy, full-term newborns. The developer explained the decision to reverse the measure is to focus attention on the 3-6% of babies with unexpected complications. The Committee agreed that this is an important outcome measure and that the rate is not expected to be zero. Data from California demonstrate modest differences in outcomes. The Committee also suggested this was a good balancing measure that should be used to monitor newborn outcomes as practices change.

This outcome measure is not risk-adjusted. The developers provided an analysis of potential risk adjustors but concluded that "while there are some individual factors that can statistically affect the score, when examined together at the hospital level they cancel each other out or are distributed evenly among hospitals so as not to significantly affect the rankings." The data source is administrative claims linked to Vital Statistics; unlike the underused ICD codes for gestational age, the birth certificate data fields for "Best Obstetric Gestational Age" and "Birthweight" have high degrees of completeness and accuracy. The measure is currently in use in several states, and the Committee agreed that reframing the measure is more meaningful to audiences. The Commmittee unanimously recommended the revised measure for continued endorsement.

# 0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge (Centers for Disease Control and Prevention): RECOMMENDED

**Description**: Percent of live newborn infants that receive Hepatitis B vaccination before discharge (or within 1 month of life, if the infant had an extended hospital stay) at each single hospital/birthing facility during given time period (one year). **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Other, Paper Medical Records, Electronic Clinical Data: Pharmacy, Electronic Clinical Data: Registry

Almost 90% of infants who are infected with Hepatitis B virus during birth will develop chronic infections, which carry about a 25% lifetime risk for premature death from liver failure or liver cancer. Immunization at birth prevents development of chronic Hepatitis B infection. The developer has revised the measure to exclude parent refusals since the goal is to measure how many babies are protected. Data from the 2014 National Immunization Survey reported a mean performance rate of 72.4% - down NATIONAL QUALITY FORUM

from the rate of 74.2% in 2013. The measure is specified for electronic clinical data, registry and abstraction from electronic health records with all the codes necessary to calculate the measure presented (ICD-9 and ICD-10 and CPT II codes). Testing shows that the measure reliability is improved when refusals are removed from the measure. Hospitals may have some challenges with the measure if parents and pediatricians prefer that a newborn be immunized in the pediatrician's office rather than the hospital. The Committee emphasized the preventive and public health importance of this immunization measure and unanimously recommended the measure without excluding parental refusals for continued endorsement.

Newborn: Premature/Low birthweight

# 1382 Percentage of low birthweight births (Centers for Disease Control and Prevention): RECOMMENDED

**Description**: The percentage of births with birthweight <2,500 grams; **Measure Type**: Outcome; **Level of Analysis**: Population: County or City, Population: National, Population: Regional; **Setting of Care**: Hospital/Acute Care Facility, Other; **Data Source**: Patient Reported Data/Survey

This is a population outcome measure reported by the National Center for Health Statistics to monitor low birthweight babies. The Committee noted this is a global indicator of quality that has shown a slow improvement since a high of 8.26% in 2006 to 8% in 2014. The US percentage of low birthweight births is substantially higher than in most other developed countries. Differences in low birthweight vary significantly by race and ethnicity: white -7%, black -12.8%, Hispanic -7.1%, American Indian/Alaskan native -8.1%, Asian/Pacific Islander -8.1%.

The Committee noted that this state-level measure is not a direct reflection of quality of care for specific providers, but rather it is a reflection of perinatal care in general that is important to measure and track at the state and national levels. The gradual decline of low birthweight babies is likely a result of the aggregate efforts of many participants - clinicians, plans, educators, etc. In addition, from a public health and planning point of view, it is helpful to know how many babies are going to need NICU care and support services. The Committee unanimously recommended this measure for continued endorsement.

2895 Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure (Collaboration for Pediatric Quality Measures (CAPQuaM)): NOT RECOMMENDED

**Description**: This measure describes in terms of admission temperature the status of live-born neonates less than 2,500 grams that are admitted to a Level 2 or higher nursery.

This measure reports on the temperature at admission. Temperatures are reported both in categorical terms and as a distribution. The distribution should be presented as a cumulative incidence curve with a chart to present key moments in the distribution. The categorization data may be presented in chart or graphical form, such as a pie chart, with parents. Each admission is categorized into one of five strata on the basis of their admission temperature. The strata, which were defined by our expert panel, are cold

(<34.5), very cool (34.51-35.50), cool (35.51-36.50), about right (36.51-37.50) and overly warm (>37.5). All temperatures are analyzed using degrees Celsius and reported to one decimal place. The FIRST temperature taken in the nursery is to be recorded and used.

To avoid the potential for gaming the measure by delaying a recorded temperature after arrival, the results are stratified in three ways:

- Main Stratum: Time between arrival at Level 2 or higher nursery is between 0 and 15 minutes.
- Delayed stratum: Time between arrival at Level 2 or higher nursery is more than 15 minutes.
- Other: Inadequate documentation to determine timing of temperature; **Measure Type**: Outcome; **Level of Analysis**: Population: Community, Population: County or City, Facility, Health Plan, Integrated Delivery System, Population: Regional, Population: State; **Setting of Care**: Hospital/Acute Care Facility, Other; **Data Source**: Administrative claims, Electronic Clinical Data: Electronic Health Record, Other, Paper Medical Records

This new, intermediate outcome measure for newborn temperature management reports the distribution of temperatures on arrival to the NICU for babies weighing less than 2500 grams. Strong evidence has shown that low birthweight babies who are allowed to lose body heat are at increased risk for morbidity and mortality. Data from the test population in New York provided by the developer demonstrated variation in performance. The Committee did not reach consensus on the reliability and validity of the measure due to multiple concerns: temperature strata determined by expert consensus rather than empirical evidence; difficulty in interpreting the measure results that are intended to be displayed as a distribution in a table and cumulative distribution curve rather than a single numerical result; the validity testing performed on a variant of the measure; and confusion as to how to interpret the measure results for accountability purposes. The Committee agreed that temperature data are readily collected in the medical record; however, extracting that data would be challenging for this measure. The developer reported that they are creating a web portal to submit data. The Committee agreed that neonatal temperature management is an important topic but did not recommend this measure as constructed for endorsement.

# 0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted) (Vermont Oxford Network): RECOMMENDED

**Description**: Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Electronic Clinical Data: Registry

This outcome measure was last endorsed in 2012. Low birthweight babies are particularly vulnerable to infection and the Committee agreed that while the mean rate of infection has declined from 19.2% in 2006 to 10.8% in 2014 based on the Vermont Oxford Network (VON) data, a gap remains. VON data also show that rates of hospital acquired bacterial infection varied by race/ethnicity of the mother, ranging from 11.4% for infants with black mothers to 8.9% for infants with Asian mothers. The

developer noted that updated reliability testing (signal-to-noise = 0.63) was lower than expected, suggesting "that the definition may not be applied in the same manner across all infants in all hospitals." This VON measure contains proprietary algorithms available only to VON members. The requirement for VON membership raised some concerns for the Committee for feasibility and usability, but as most hospital NICUs are VON members, they ultimately agreed it was feasible, but did not achieve consensus on usability. The measure is not publicly reported. The Committee voted to recommend measure #0304 for continued endorsement.

This measure is similar to two other measures #0478: Neonatal Blood Stream Infection Rate (NQI 03) and #1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns. Many hospital NICUs are reporting the 3 different measures, which the Committee noted is an unnecessary measurement burden. The Committee held an extensive discussion on which of the three was best in class. Ultimately, due to changes in the AHRQ measure, the update to ICD-10 CM, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that, for the time being, all three measures should remain endorsed, since they report slightly different information. However, they directed the three developers to work together to create a single measure and bring back new data in 18 months for an off-cycle review.

# 0478 Neonatal Blood Stream Infection Rate (NQI 03) (Agency for Healthcare Research and Quality): RECOMMENDED

**Description**: Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia. **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims

This risk-adjusted outcome measure, initially endorsed in 2008, is based on administrative claims to assess infection in low birthweight newborns. Data are collected from 48 states via the Agency for Healthcare Research and Quality's (AHRQ) Healthcare Cost and Utilization Project (HCUP) dataset. For more than 1,200 hospitals, the mean results have declined from 11.53 per 1,000 in 2011 to 9.15 per 1,000 in 2013. The developer presented measure results stratified by gender, zip code median income, rural v. urban, payment source and region. Lower rates were found for females, highest income quartile, rural facility, self pay/no insurance and the Northeast. Updated reliability testing reported an overall signal-to-noise rate of 0.63 with higher reliability with larger sample sizes.

This measure is similar to two other measures, #0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted) and #1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns. Many hospital NICUs are reporting the three different measures, which the Committee noted is an unnecessary measurement burden. The Committee held an extensive discussion on which of

the three was best in class. Ultimately, due to the changes in the AHRQ measure, the update to ICD-10, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that for the time being all three measures should remain endorsed, since they report slightly different information. However, they directed the three developers to work together to create a single measure and bring back new data in 18 months for an off-cycle review.

# 1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns (The Joint Commission): RECOMMENDED

**Description**: This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding). **Measure Type**: Outcome; **Level of Analysis**: Facility, Population: National; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Paper Medical Records

This outcome measure has been endorsed since 2012. National aggregate data for newborn infection from 1218 hospitals in 2014 reported to The Joint Commission was 3.2%. The mean hospital rate in 2014 was 2.98% and the range was 0-7.1%. The Committee agreed that there is a significant opportunity for improvement as the national results have worsened since 2011. The developer explained that additional, smaller hospitals are now reporting (as of 2016, all hospitals with more than 300 births annually are required to report), so new gaps are appearing. The measure was recently updated to ICD-10 CM and some changes were made to the specifications, but the Committee agreed these changes were appropriate. It was also agreed that the measure is feasible and usable, especially with the updates to the specifications, although they noted that data to compare the ICD-9 CM based results and ICD-10 CM based results are not yet available.

This measure is similar to two other measures, #0478, Neonatal Blood Stream Infection Rate (NQI 03) and #0304: Late Sepis or Meningitis in Very Low Birth Weight Neonates (Risk Adjusted). Many hospital NICUs are reporting the three different measures, which the Committee noted is an unnecessary measurement burden. The Committee held an extensive discussion on which of the 3 was best in class. Ultimately, due to the changes in the AHRQ measure, the update to ICD-10 CM, the expanded number of facilities reporting, and the slightly different populations included, the Committee agreed that for the time being all three measures should remain endorsed, since they report slightly different information. However, they directed the three developers to work together to create a single measure and bring back new data in 18 months for an off-cycle review.

0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity. (Vermont Oxford Network): RECOMMENDED

**Description**: Proportion of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for screening for retinopathy of prematurity (ROP) by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge. **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Electronic Clinical Data: Registry

The endorsed process measure from the Vermont Oxford Network (VON) assesses whether premature infants who are at risk for eye complications due to prematurity have had an eye evaluation prior to hospital discharge. The Committee noted that the data collected is a simple yes/no and does not include the date or gestational age. The Committee discussed alternative methods for the eye evaluation because of shortages of pediatric ophthalmologists in some areas. For the 916 hospitals in the VON network, average performance on this measure improved slightly from 90.1% in 2006 to 91.8% in 2014. Reliability testing of the measure score indicates higher reliability for larger sample sizes. For VON members, this measure requires chart abstraction and submission to VON, but the measure specifications can be used by any hospital to calculate their own performance. The Committee was concerned that this measure is not publicly reported; however, due to the importance of preventing eye problems for premature babies, the Committee recommended this measure for continued endorsement.

# 2893 Neonatal Intensive Care All-Condition Readmissions (The Children's Hospital of Philadelphia): NOT RECOMMENDED

**Description**: The NICU Readmissions metric assess the hospital- or state-level readmission rate at 30 days after a stay in the Neonatal Intensive Care Unit. **Measure Type**: Outcome; **Level of Analysis**: Facility, Population: State; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Administrative claims, Electronic Clinical Data: Electronic Health Record, Other

This new outcome measure assesses readmission to the hospital for infants discharged from the Neonatal Intensive Care Unit (NICU). The Committee agreed that transitions of care are important; discharge planning and outpatient care coordination can influence the outcome; readmission is sensitive to racial/ethnic disparities; and there is significant variation in care. The Committee noted that there are numerous readmission measures for adults and children; however, newborns may be cared for in 2 types of NICUs: a maternity/birth hospital that does not readmit neonates and a general acute care facility that does readmit neonates (though the infants are typically readmitted to the general pediatrics unit rather than the NICU). This measure is specified for facilities/hospitals that may not be able to track readmissions to other facilities. Though health information exchanges may improve the data capture in the future, the Committee noted that insurers, managed care organizations and Medicaid may be better able to track readmissions across facilities.

The measure relies on hospital data linked to vital statistics, which may not be available in all locations. The Committee was concerned that the measure does not account for planned readmissions or planned transfers and does not differentiate between a hospitalization and an observation stay – both are included as readmissions. The developer indicated "accurate implementation of this metric will require new data collection linkage with birth certificates or more widespread and standardized use of the EHR for publicly reported measures." The Committee did not recommend the measure because of the questions around reliability of data capture and recommends further development of this important measure. The Committee also suggested including larger babies that may not have been in the NICU but experience a significant number of readmissions.

# **Postpartum**

# 0480 PC-05 Exclusive Breast Milk Feeding (The Joint Commission): RECOMMENDED

**Description**: PC-05 assesses the number of newborns exclusively fed breast milk during the newborn's entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns). **Measure Type**: Process; **Level of Analysis**: Facility, Population: National; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Electronic Clinical Data, Paper Medical Records

This process measure was last endorsed in 2012. Numerous studies have demonstrated the benefits of breastfeeding including reductions in asthma, diarrheal illness and childhood obesity. Committee members noted that not all mothers are able to breastfeed and agreed with the developer that a target goal rate for the measure of 70% of patients exclusively breastfeeding during their hospital stay is reasonable. Data reported to The Joint Commission demonstrated wide variation in performance and, in over half the hospitals reporting, rates have not yet reached 50%. This measure engendered extensive discussion about patient choice, external circumstances that affect a woman's ability to breastfeed (such as the availability of maternity leave and the ability of working mothers to pump), and concerns about pressuring mothers and about the availability and quality of counseling. A Committee member summarized the concerns around the measure as the tension between pressure on mothers whose circumstances do not support breastfeeding (such as women who have less than 4 weeks leave or who have jobs where they cannot pump) and promoting the health benefits for the baby by keeping the goal at 70% to move the nation forward. The measure was recently updated to ICD-10 CM, and the submeasure, exclusion of mothers who declined to breastfeed, was removed because stakeholders felt it was too much burden to get the data. As the measure is currently in widespread use, it was agreed it was both usable and feasible. Despite some concerns, the Committee ultimately voted to recommend the measure for continued endorsement, highlighting the lifetime benefits, and the many ways that process improvements can positively impact a facility's rates.

# 0480:2830 [eMeasure] PC-05 Exclusive Breast Milk Feeding (The Joint Commission): RECOMMENDED

**Description**: PC-05 assesses the number of newborns exclusively fed breast milk during the newborn's entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns). PC-05, Exclusive Breast Milk Feeding, is one of two measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program. **Measure Type**: Process; **Level of Analysis**: Facility, Population: National; **Setting of Care**: Hospital/Acute Care Facility; **Data Source**: Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record

This is the eMeasure version of measure #0480 PC-05 Exclusive Breast Milk Feeding. The information on evidence and opportunity for improvement is the same as measure #0480. The technical review found this eMeasure to have appropriate specifications and value sets, and an adequate feasibility assessment that addressed the data elements and measure logic. The Committee found the results of the BONNIE testing in a simulated data set provided by the developers acceptable. The developer reported that 6 healthcare organizations reported this eMeasure to The Joint Commission in 2015 and 31 healthcare organizations will be reporting the eMeasure in 2016.

# **Comments Received After Committee Evaluation**

After the Committee's evaluation of the measures, NQF solicited comments on the draft report via an online tool from June 7, 2016, through July 6, 2016. During this period, NQF received 178 comments from 10 member organizations and 35 members of the public (both organizations and individuals). Comments included support for Committee recommendations, as well as comments supporting harmonization of the competing measures, comments noting the importance of patient choice for breastfeeding and contraception measures, additional measure gaps, and measure-specific issues. Measure-specific comments are included in the Appendix A measure discussions.

# Measures Withdrawn from Consideration

Six measures previously endorsed by NQF were not re-submitted for maintenance of endorsement.

One additional measure was withdrawn after the comment period. Endorsement for these measures will be removed.

Measure	Reason for withdrawal
0472 Appropriate Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision – Cesarean section.	Unable to continue as steward. Would be willing to transfer ownership to another willing steward.
0477 Under 1500g infant Not Delivered at	The developer indicated that resubmission was

Measure	Reason for withdrawal
Appropriate Level of Care	too much work for a measure that the steward themselves are not using, uncertainty that others were truly using it as a quality measure, and the best role seemed to be as a population level measure rather than a hospital level measure, which is the steward's main interest.
0567 Appropriate Work up Prior to Endometrial Ablation Procedure	No reason provided.
0651 Ultrasound determination of pregnancy location for pregnant patients with abdominal pain	No reason provided.
1391 Frequency of Ongoing Prenatal Care (FPC)	NCQA has opted to remove the Frequency of Prenatal Care (#1391) measure from consideration for re-endorsement.
1395 Chlamydia Screening and Follow Up	NCQA is not currently using this measure in other major programs to the extent that the level of effort required to maintain endorsement.
1746 Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)	Unable to continue as steward. Would be willing to transfer ownership to another willing steward.

# References

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- <sup>2</sup> Save the Children. State of the World's Mothers 2015 Report: The Urban Disadvantage. Fairfield, CT: Save the Children; 2015. Available at http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM 2015.PDF. Last accessed 2015.
- <sup>3</sup> National Partnership for Women & Families. United States maternity care facts and figures website. Available at http://transform.childbirthconnection.org/resources/datacenter/factsandfigures/ Last accessed October 2015.
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- <sup>5</sup> Dehlendorf C, Rodriguez MI, Levy K, et al. Disparities in family planning. American J Obstet Gynecol. 2010;202(3):214-220. Available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835625/. Last accessed October 2015.
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- <sup>7</sup> Martin JA, Hamilton BE, Osterman MJK. Births in the United States, 2014. NCHS Data Brief.2015;(216):1-8. . Available at http://www.cdc.gov/nchs/data/databriefs/db216.htm. Last accessed May 2016
- <sup>8</sup> Osterman MJK, Martin JA. Trends in low-risk cesarean delivery in the United States, 1990–2013. NI Vital Stat Rep. 2014;63(6):1-16. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63\_06.pdf . Last accessed May 2016.
- <sup>9</sup> Curtin SC, Gregory KD, Korst LM, et al. Maternal morbidity for vaginal and cesarean deliveries, according to previous cesarean history: new data from the birth certificate, 2013. NI Vital Stat Rep. 2015;64(4):1-3. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64 04.pdf. Last accessed May 2016.
- <sup>10</sup> Agency for Healthcare Research and Quality (AHRQ). National healthcare quality & disparities reports website. http://www.ahrq.gov/research/findings/nhqrdr/index.html. Last accessed May 2016.

# **Appendix A: Details of Measure Evaluation**

Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable; Y=Yes; N=No

# Measures Recommended

# 0033 Chlamydia Screening in Women (CHL)

### **Submission | Specifications**

**Description**: The percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.

Numerator Statement: Females who were tested for chlamydia during the measurement year.

Denominator Statement: Females 16-24 years who had a claim or encounter indicating sexual activity.

**Exclusions**: Females who received a pregnancy test to determine contraindications for medication (isotretinoin) or

x-ray.

Adjustment/Stratification: No risk adjustment or risk stratification

**Level of Analysis:** Health Plan, Integrated Delivery System **Setting of Care:** Ambulatory Care: Clinician Office/Clinic

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data: Imaging/Diagnostic Study,

Electronic Clinical Data: Laboratory, Electronic Clinical Data: Pharmacy

Measure Steward: National Committee for Quality Assurance

#### **STANDING COMMITTEE MEETING [May 02 2016]**

## 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Previous Evidence Evaluation Accepted; 1b. Performance Gap: H-21; M-6; L-0; I-0

#### Rationale:

- The developer provided updated US Preventative Services Task Force (USPSTF) (2014) recommendations for screening for chlamydia in sexually active females aged 24 years or younger and in older women who are at increased risk for infection. Evidence synthesis concluded, "Chlamydia screening in young women may reduce pelvic inflammatory disease." USPSTF notes "the studies it reviewed on the direct effects of screening for chlamydia, including one new good-quality RCT, showed mixed results. This led to the change in grade for screening for chlamydia, which is now based on "moderate" certainty of a moderate net benefit rather than "high certainty" of a substantial net benefit."
- Although the USPSTF recommendation has been changed to a "B" level, the Committee agreed that the
  underlying evidence presented appears to be directionally the same since the last NQF endorsement
  review.
- The Committee highlighted that only 38% of the visits in one cohort in 2014 had appropriate testing, signaling a significant gap in care.
- The Committee expressed concerns about the exclusive focus on women and the unintended consequences for not including men in the measure. The developer clarified that the Task Force evaluated this before this measure was originally approved and the evidence for a direct health benefit was limited to women. The Committee highlighted that the USPSTF recommendation acknowledged the importance of men in this population, citing extensively the CDC recommendations in screening and treating men but recognized the limitation of data.
- The Committee noted that even though the developer presents evidence from the literature that
  describes racial/ethnic differences in screening rates (higher in African-Americans and Hispanics) and
  prevalence of the disease (higher in African-Americans and Mexican-Americans), the developer did not
  collect performance data stratified by race, ethnicity, or language. The developer explained that they are
  very interested in having data that would help propel the improvement and elimination of disparities and

#### 0033 Chlamydia Screening in Women (CHL)

the release of the Medicare Advantage data by race and ethnicity is a huge step forward, and one that they are closely tracking to leverage into opportunities for displaying data in stratified ways to push improvement. The developer also noted that health plans are able to stratify the data by race/ethnicity or any other variables they desire.

## 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

# 2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **Previous Validity Evaluation Accepted** Rationale:

- The developer noted several updates to the specification codes (HCPCS, LOIN, ICD-<u>109</u> diagnosis codes) since the prior evaluation.
- The Committee noted the specifications state a patient only needs to be identified in 2 methods (i.e.,
  pharmacy data and claim/encounter data indicating sexual activity) to be eligible for this measure. The
  Committee questioned how this measure would account for transgender individuals and females
  between 16 and 24 who are using some types of contraception for non-contraceptive benefits.
  - o The developer clarified that the teenagers in that age group sometimes state that they are using oral contraceptives for non-contraceptive reasons, but because of confidentiality and privacy concerns, may not disclose that they are in fact sexually active. The developer found that the algorithm was a reasonable proxy and that the false negative rates were quite low.
- There was no updated testing for reliability and validity. The developer previously conducted empirical testing at the measure score level and face validity. The prior testing demonstrated high reliability and adequate validity. The Committee agreed the measure was reliable and valid.

#### 3. Feasibility: H-21; M-5; L-1; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

## Rationale:

The Committee agreed the measure is feasible, since it is based on administrative claims data for which
data collection is generally considered to be feasible and low burden. No concerns regarding feasibility
were noted.

### 4. Usability and Use: H-13; M-14; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

- This measure is publicly reported and used in the Medicaid Adult and Child Core Sets and California's Value Based Pay for Performance Program.
- The Committee had no concerns about unintended consequences of continued use.

#### 5. Related and Competing Measures

• No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-27; N-0

#### Rationale

• The Committee agreed that this measure meets all the NQF criteria for continued endorsement.

## 0033 Chlamydia Screening in Women (CHL)

## 6. Public and Member Comment: June 7 – July 6, 2016

# **Comments Received**

• This measure received 6 comments, generally supporting continued endorsement, but also raising some concerns focused around the exclusions and suggestions for updates, as well as how "sexually active" is defined. Comments recommended improvements such as expanding the age range, including males, and establishing appropriate benchmarks.

#### **Developer Response:**

- The measure's age range aligns with the US Preventive Services Task Force screening recommendation and corresponds to the age groups with highest chlamydia prevalence. In females, the highest chlamydia infection rates occur in those aged 20-24 years, followed by those 15-19 years (CDC. 2012 Sexually Transmitted Diseases Surveillance. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2014. Accessed at www.cdc.gov/std/stats12/default.htm).
- The measure uses two administrative methods to identify sexual activity: claims/encounters that suggest sexual activity (pregnancy codes, sexual activity codes) and pharmacy data (contraceptives). For those who qualify based on a pregnancy test alone, if the test was used to rule out pregnancy for x-rays or retinoid prescription, those females are excluded. This method to assess sexual activity using an administrative algorithm was tested and found to reasonably identify sexually active females. Women who have sex with women and meet any of the criteria specified would be included in the denominator.

# **Committee Response:**

- The Committee agreed they were comfortable with the age range in the measure because that is the range of the data provided. Committee members agreed that screening men is crucial to stopping transmission of chlamydia, but since the Committee is not able to change the measure to include men, they did not want to not recommend it for that reason alone. The Committee has added a new gap to the measure gaps list, a chlamydia screening measure for men.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

#### **Submission | Specifications**

**Description**: Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants

**Numerator Statement**: Eligible infants with one or more of the following criteria:

#### Criterion 1:

Bacterial Pathogen. A bacterial pathogen is recovered from a blood and/or cerebral spinal fluid culture obtained after Day 3 of life.

OR

#### Criterion 2:

Coagulase Negative Staphylococcus. The infant has all 3 of the following:

- 1. Coagulase negative staphylococcus is recovered from a blood culture obtained from either a central line, or peripheral blood sample and/or is recovered from cerebrospinal fluid obtained by lumbar puncture, ventricular tap or ventricular drain.
- 2. One or more signs of generalized infection (such as apnea, temperature instability, feeding intolerance, worsening respiratory distress or hemodynamic instability).
- 3. Teatment with 5 or more days of intravenous antibiotics after the above cultures were obtained. If the infant died, was discharged, or transferred prior to the completion of 5 days of intravenous antibiotics, this condition would still be met if the intention were to treat for 5 or more days.

**Denominator Statement**: Eligible infants who are in the reporting hospital after day 3 of life.

**Exclusions**: Infants who do not meet eligibility criteria for birth weight, gestational age or hospital admission, or if the infant is discharged home, is transferred or dies prior to day 3 of life.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

**Data Source**: Electronic Clinical Data : Registry **Measure Steward**: Vermont Oxford Network

# STANDING COMMITTEE MEETING [05/02/2016]

#### 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Previous Evidence Evaluation Accepted; 1b. Performance Gap: H-15; M-9; L-1; I-0

# Rationale:

- The Committee noted the evidence was updated with 11 observational and quasi-experimental studies and one clinical guideline further supporting the evidence of this measure, and that there are specific things that providers can do to reduce infections.
- The developer noted that the measure looks at bacterial infections in blood or cerebral spinal fluid, and it is based on clinical data, not claims. While members of Vermont Oxford Network have made improvements, some hospitals still have high rates. The developer is working creating an eMeasure version.
- The mean rate of infection has been reduced (2006 mean rate = 0.192; 2014 mean rate = 0.108) but there continues to be variation between the minimum and maximum performance, and disparities remain.

## 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-2; M-21; L-2; I-0 2b. Validity: M-20; L-4; I-0

### Rationale:

- The developer provided additional reliability testing using split-half analysis to assess signal-to-noise. The result of 0.63 was lower than expected.
- The Committee had some questions about the definition of infection, and noted that the measure was tested for babies weighing between 500-1,500 grams, but is being implemented for babies 400-1,500 grams.
- The Committee asked why meningitis had been added and how many cases it contributed, since this is the only one of the three infection measures that included it. The developer said they do not distinguish how many were meningitis as the definition includes positive blood culture or positive CSF.

## 3. Feasibility: H-4; M-20; L-2; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

• This measure is collected by the Vermont Oxford Network (VON) registry. The proprietary risk-adjustment method is available only to members. Members must pay a fee to belong to VON.

#### 4. Usability and Use: H-2; M-12; L-10; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

- This measure is currently in use, but only within the VON Network. While it does capture 85% of birth hospital NICUs, 25% of neonatal care is provided by freestanding children's hospitals, not all of which are part of Vermont Oxford Network. Babies may be born at a VON center and then transferred out to a specialized hospital for further care, which would not be counted in this measure.
- The developer stated that they were looking into producing a publically reported panel that a hospital could put out if they would like, and which would include this measure. Further, while they will not publically report results (as per their member contract), they will make it easier for their members to publically report results if they would like to. They are working with AAP, CDC, NQF, Leapfrog, and other organizations to report on the data without reporting results from a particular hospital.
- Clarification was provided that the measure includes all admissions before day 28, and that the data
  includes which hospital the infant developed the infection at, if they are later admitted to a second
  hospital.
- The measure did not achieve consensus on usability and use.

# **5. Related and Competing Measures**

- This measure competes with 0478: Neonatal Blood Stream Infection Rate (NQI 03) (AHRQ) and #1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns (The Joint Commission).
- The Committee had an extensive discussion on the 3 competing measures. NQF provided guidance on the related/competing measure process.
- The Joint Commission and AHRQ have done some work on harmonization. The Joint Commission (TJC) compared the 2 measures, #1731, which uses partial chart review and administrative data, and #0478, which only uses administrative data, and found the measure using chart review was able to identify more cases that had not been included in the other measure due to coding issues. In addition, #0478 excludes cases diagnosed 7 days or less after birth and #1731 measure excludes only 2 days or less, which they thought accounted for about 10% of the difference. (#0478 is now 3 days or less.) The Joint Commission stated that while the measures are similar, since codes are not uniformly assigned, their measure, which also uses chart review is able to identify more cases. This comparison was done using ICD-9 CM codes, and they think that that there will be less discrepancy between the two measures with the use of ICD-10

CM codes

- AHRQ noted that they had made changes to #0478 based in part on the analysis done with TJC, and that the measure will also change with ICD-10 CM, and that the current versions are more aligned. In addition, #0478 looks at all causes and cases of sepsis, while #1731 focuses on those associated with central lines. In addition, the AHRQ measure is not reported at a hospital level.
- A Committee member related some of the history of this measure, noting that the AHRQ measure was
  originally endorsed and brought into The Joint Commission's core set, and then turned into a clinical data
  measure. During the previous review and discussion of competing measures, Medicaid programs stated
  that they could not collect the data unless it was administrative, and that is why there were 2 endorsed
  measures.
- Committee members requested more information on the change to ICD-10 CM, in particular wondering if
  this would now have less chart review burden, and the developer stated it was too soon to tell, especially
  with the learning curve associated with changing coding guidelines. It was also noted that with ICD-10
  CM, "suspected" or "probable" is no longer included (cases are yes/no) which should reduce gaming.
- For the chart review Committee members who are using the measure did not think it was a large burden due to the very small number of charts that have to be reviewed, and that hospitals would be reviewing all of these charts anyway due as they work to reduce infection rates. Coding for neonatal sepsis is complicated and the chart review is used to make the measure more accurate. In addition, the developer noted, hospitals like to be able to exclude false positives. It was noted that false negatives are a larger issue.
- After discussion, the Committee felt there is not yet enough data on the performance of either measure
  under ICD-10 CM and that ICD-10 CM has the potential to reduce a lot of the burden associated with
  manual chart review. In addition, many new, smaller facilities (300 deliveries) are just beginning to report
  on this measure so current performance rates are not yet available (although these very small facilities
  are unlikely to be caring for these babies, who would be transferred).
- The Committee noted that EHRs are not yet to the point where this data can be automatically pulled out.
- The Committee then discussed the ways in which the VON measure, #0304, differs from the other 2 measures. Measure #0304 does not include babies more than 1,500 grams, and does include meningitis; however, it is not clear how big the group of babies with meningitis actually is. Currently the measure requires either a positive blood or CSF culture and is not collected separately, although the developer agreed that might be a good idea. The VON measure is risk adjusted, which allows for more even comparisons across facilities. However, the major issue with the VON measure is that it is not publically reported and requires a registration fee.
- The Committee noted they were struggling with the question of whether one was best, especially with the changes to the measures. Committee members using the measures noted they focus on slightly different populations. For example, there are about 40,000 VLBW babies born in each year and bloodstream infections are most prevalent in this population, but there are many more, larger babies born each year even if the infection rates are smaller. One Committee member stated that to actually move the needle, the VLBW babies are the target population, but only about a quarter of the NICUs in the country treat these babies, with the remaining three-fourths of NICUs treating LBW and premature babies. Another Committee member noted that focusing on the smaller, high-prevalence population misses the opportunity to improve processes and reduce infections in many facilities.
- Ultimately, due to the changes in the AHRQ measure, the update to ICD-10, the expanded number of
  facilities reporting, and the slightly different populations included, the Committee agreed that for the
  time being all 3 measures should remain endorsed, since they are being used for different things. In
  terms of burden, it was noted that the high-level NICUs are all already reporting to VON; that almost
  everyone has to report to the Joint Commission; and that there is no burden for hospitals for the AHRQ
  measure since it comes out of billing data and is reported by the state data organizations.
- The Committee requested that, for the next year, a specific effort be made to get the data from those facilities that collect and report on 2 or 3 of the measures in order to allow a more accurate comparison.

VON noted that they do a member survey and they will ask members that are collecting on the other measures as well. They also offered to work with The Joint Commission to compare the data.

- Committee members highlighted that while it is easy for them to understand the differences between the measures and rates, it may not be so clear to the public, and they reiterated the need for a single measure
- The Committee requested that the developers provide more information and new data in 18 months for the Committee to relook at the measures during an off-cycle review. They further requested that the developers work together toward a single future measure.

# Standing Committee Recommendation for Endorsement: Y-21; N-3

### Rationale

• The Committee agreed that this measure meets all the NQF criteria for continued endorsement.

#### 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received**

• One commenter submitted 1 comment on each of the 3 measures agreeing with the Committee's decision to recommend, but urging the developers to coordinate or combine measures.

## **Developer Responses**

- Agency for Healthcare Research and Quality: AHRQ appreciates the suggestion to compare the AHRQ, The Joint Commission (TJC), and Vermont Oxford Network's measures of neonatal blood stream infection, AHRQ's NQI 03 Neonatal Blood Stream Infection Rate (NQF 0478), TJC's PC-04 Health Care-Associated Bloodstream Infections in Newborns (NQF 1731), and Vermont Oxford Network's Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (NQF 0304). These three NQF endorsed measures were each developed for specific and different purposes and for different data sources, which has led to deviations in specifications. As noted in the NQF submission materials to the Perinatal Committee, AHRQ engaged with TJC to harmonize the measures NQF 0478 (AHRQ) and NQF 1731 (TJC) where possible. In some cases, differences in the data source or intended purpose of the measures favor measures that are not fully harmonized. In other cases, harmonization is feasible while maintaining the integrity of the measure for the intended use and data source. As suggested by the committee, AHRQ will continue to explore the feasibility and desirability of further harmonization of the measures.
- *The Joint Commission:* Thank you for your feedback. We have done extensive work and these measures have been harmonized to the extent possible at this time.
- Vermont Oxford Network: Thank you for your comment. The developers of the three infection
  measures agreed to work together to harmonize these measures before the next submission period.
  This measure is specific to Vermont Oxford Network members, but we do work with health systems and
  plans to provide reports of our measures with appropriate permissions from our members.

# **Committee Response**

• The Committee agrees that harmonization of these 3 measures is important to reduce the burden of reporting. The developers have been directed to work together over the next 18 months to arrive at a single measure with supporting data, to be presented to the Committee during an off-cycle review.

## 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

8. Board of Directors Vote: Y-X; N-X

#### 9. Appeals

#### 0469 PC-01 Elective Delivery

#### **Submission | Specifications**

**Description**: This measure assesses patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding)

**Numerator Statement**: Patients with elective deliveries with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for one or more of the following:

- Medical induction of labor as defined in Appendix A, Table 11.05 available at: http://manual.jointcommission.org/releases/TJC2015B2TJC2016A/ while not in Labor prior to the procedure
- Cesarean birth as defined in Appendix A, Table 11.06 and all of the following:
  - o not in Labor
  - no history of a Prior Uterine Surgery available at: http://manual.jointcommission.org/releases/TJC2015B2/

**Denominator Statement**: Patients delivering newborns with >= 37 and < 39 weeks of gestation completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: http://manual.jointcommission.org/releases/TJC2015B2TJC2016A/ and with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for planned cesarean birth in labor as defined in Appendix A, Table 11.06.1 available at: http://manual.jointcommission.org/releases/TJC2015B2TJC2016A/

**Exclusions**: • ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for conditions possibly justifying elective delivery prior to 39 weeks gestation as defined in Appendix A, Table 11.07

- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Enrolled in clinical trials
- Gestational Age < 37 or >= 39 weeks or UTD

Adjustment/Stratification: No risk adjustment or risk stratification

**Level of Analysis:** Facility, Population: National **Setting of Care:** Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Paper Medical Records

Measure Steward: The Joint Commission

# STANDING COMMITTEE MEETING [05/03/2016]

- 1. Importance to Measure and Report: The measure meets the Importance criteria
- (1a. Evidence, 1b. Performance Gap)
- 1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-10**; **M-13**; **L-2**; **I-0** Rationale:
  - The developer did not submit new evidence during this maintenance review, but Committee members
    noted that ACOG recently reaffirmed the practice bulletin for timing of elective induction of labor at >39
    weeks.
  - While performance is improving, there is still a gap in care in this area (2014 data in 1388 hospital national mean= 3.3%, range 0-8.7%.) Committee members noted that as of January 2016, more hospitals are reporting on this measure (now 80% of all birthing hospitals), so they expect more variation to appear. Committee members noted that one of the major drivers of morbidity was repeat elective C-sections at 37 weeks, and that number had dropped significantly.
  - There was some discussion about whether this measure is "topped out" but Committee members agreed the change was very new, and that it was too soon to retire this measure, both because there are many outliers and because the improvement is too recent to ensure it will continue. In addition, it was noted

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this is a very good measure to educate people outside of healthcare about quality improvement. Further, it is relatively newly recognized that babies born at 37-39 weeks do, in fact, have more problems and much education remains to be done for parents and other stakeholders.

## 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: M-25; L-1; I-0 2b. Validity: Previous Validity Evaluation Accepted

## Rationale:

- The measure has recently been converted to ICD-10 CM, and it was noted that it is not yet clear how this
  may affect the measure.
- Some changes have been made to the specifications to further clarify and refine the measure, including
  now excluding patients with no prenatal care (since gestational age cannot be determined). Committee
  members noted that sampling for small populations can be problematic and that the measure is more
  reliable when the full population is used.
- Some Committee members questioned the appropriateness of some of the exclusions, i.e. "Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for conditions for possibly justifying elective delivery are excluded" including poor obstetric history, biliary disease, pregnancy after miscarriage, etc.-

## 3. Feasibility: H-15; M-10; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

- Committee members noted that while the measure does require some manual chart review, it has been used for several years and the new codes should reduce the burden.
- The developer clarified that gestational age is based on best obstetric estimate, generally ultrasound, and
  that it should be counted from gestational age at delivery (not the date the baby leaves the hospital).
   Electronic records should reduce the possibility of gaming if the wrong date is written at the time of
  delivery.

# 4. Usability and Use: H-21; M-4; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

- This measure is in widespread use in Quality Check, Hospital Compare, accreditation, and hospital and patient quality reporting. In addition, it is measure easily understood by the public.
- It was noted some of the improvements to the measure made it more usable.

#### **5. Related and Competing Measures**

• No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-25; N-0

#### Rationale

• The Committee agreed that this measure meets all the NQF criteria for continued endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received**

A total of 12 comments were received on both the electronic and paper versions of the measure.
Generally, the comments were in support, and several noted that while rates have improved, much remains to be done. However, a pair of comments noted concerns with the measure exclusions. A second pair of comments noted that elective delivery/induction may be preferable in very rural areas that lack access to secondary and tertiary facilities.

## **Developer Response**

Over the last several years The Joint Commission has responded to suggestions from the obstetrics

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community to adjust the specifications for PC-01: Elective Delivery to allow for a wider array of exclusions. Some of these have resulted in new ICD codes being added and others have required the addition of new exclusions that can only be determined by chart reviews (an unfortunate but currently needed situation). The Joint Commission continues to receive numerous requests for "appeals" and new exclusions which are uncommon or rare conditions justifying the need for an early-term elective delivery. While many of these conditions have been incorporated into the current PC-01 specifications, medical issues are varied enough that it is impossible to enumerate 100% of the potential circumstances that could justify an early-term elective delivery. For example, a mother with a malignancy and need to start chemotherapy might require a delivery before 39 weeks. Although these cases are rare their occurrence can be such to generate an early-term elective delivery rate of 2-4%. This supports the rationale for not expecting this measure to consistently reach 0% elective deliveries. The Joint Commission has worked closely with a technical advisory panel (TAP) since the inception of this project. The TAP is comprised of leading national perinatal care experts including obstetricians, pediatricians, neonatologists and nurse clinicians. Recently, the TAP reaffirmed the goal of 5% which is supported by the 2013 study by Clark, et. al, validating the denominator exclusion criteria for PC-01.

- There are currently 2 sets of ICD-10-CM diagnosis codes on Table 11.07 which should be used for prelabor (preterm) rupture of membranes: the first set is O42.011, O42.012, O42.013, O42.02, O42.911,
  O42.912, O42.913 and O42.92 and for prolonged rupture: the second set is O42.111, O42.112, O42.113
  and O42.12. The coders should be applying these codes when there is appropriate documentation that
  SROM occurred without commencement of labor. As a result the case would be excluded from the
  measure. Documentation of spontaneous rupture of membranes without onset of labor should be
  taken at face value according to ACOG. The 2013 ACOG definition of Preterm Rupture of Membranes
  (PROM is rupture of membranes before the onset of labor. Membrane rupture that occurs before 37
  weeks of gestation is referred to as preterm PROM. Membrane rupture that occurs at 37 weeks of
  gestation or later is referred to as term PROM. In 2014, ACOG re-named premature rupture of
  membranes to pre-labor rupture of membranes in order to further clarify the meaning of PROM. We
  consider ACOG an authoritative source. Based on the ACOG definition one of the codes from the first
  set applies to all cases with SROM regardless of gestational age, and only the absence of labor should
  be required to use this code. If the ruptured membranes are >24 hours then one of the codes from the
  second set applies."
- Requiring gestational age and careful scrutiny (chart reviews) for exclusions does preclude the use of
  claims data but there is progress in creating an eMeasure version. However, because of the small
  sample size for this measure for a given health plan within a given hospital it will unlikely be a practical
  measure at the plan level.
- While this has been proposed as a potential concern, rural hospitals in general have done very well on this measure. In general there are few logistical reasons that truly need elective delivery prior to 39 weeks of gestation. In any case, the federal mandate for reporting of this measure for MediCare P4P specifically excludes Critical Access Hospitals.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

#### **0470** Incidence of Episiotomy

#### **Submission | Specifications**

**Description**: Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed.

**Numerator Statement**: Number of episiotomy procedures (ICD-9 code 72.1, 72.21, 72.31, 72.71, 73.6; ICD-10 PCS:0W8NXZZ performed on women undergoing a vaginal delivery (excluding those with shoulder dystocia ICD-10; O66.0) during the analytic period- monthly, quarterly, yearly etc.

**Denominator Statement**: All vaginal deliveries during the analytic period-monthly, quarterly, yearly etc. excluding those coded with a shoulder dystocia ICD-1: O66.0).

**Exclusions**: Women who have a coded complication of shoulder dystocia. In the case of shoulder dystocia, an episiotomy is performed to free the shoulder and prevent/mitigate birth injury to the infant.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility

**Setting of Care:** Hospital/Acute Care Facility

**Type of Measure**: Process

Data Source: Administrative claims, Paper Medical Records

Measure Steward: Christiana Care Health System

# STANDING COMMITTEE MEETING [05/02/2016]

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-20**; **M-4**; **L-0**; **I-0**; Rationale:

- The evidence has not changed from the Cochrane Review and ACOG bulletins cited in the original submission that report an increased risk of perineal trauma with episiotomy.
- Committee members noted while there has been a 33% decrease in episiotomies, there is still great
  variation in performance between hospitals (0.8 22%) and much room remains for improvement.
   Committee members shared their experience with providing individual clinician results and peer teaching
  as effective in changing behavior to reduce episiotomies.
- A Committee member suggested that episiotomy and vacuum deliveries should be linked.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

# 2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **Previous Validity Evaluation Accepted** Rationale:

- The measure has been recently converted to ICD-10 CM.
- No changes to the specifications have been made and no new testing data was offered. <u>Data element</u> validity had been tested comparing the coded data to medical record "gold standard" and face validity.

# 3. Feasibility: H-25; M-2; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

- Committee members noted that because this is a procedure, it is easy to code (yes/no). It is included in discharge data and administrative data sets.
- The developer noted that updating to ICD-10 CM codes helps make the measure more feasible by addressing some coding issues that had come up in the past.

## **0470** Incidence of Episiotomy

## 4. Usability and Use: H-25; M-2; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

## Rationale:

- The Leapfrog Group has been publically reporting this measure for close to 1,000 hospitals.
- Several Committee members have had experience using this measure to educate providers and hospitals and reduce rates, and all commented favorably about the usability. It was also noted that peer-to-peer education is the most effective way of changing performance.

### 5. Related and Competing Measures

No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-27; N-0

#### Rationale

The Committee agreed that this measure meets all the NQF criteria for continued endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received**

• This measure received 4 comments, all in support of endorsement. One comment suggested the additional exclusion of fetal distress requiring more rapid delivery.

#### **Developer Response**

• Fetal distress requiring more rapid delivery should NOT be an exclusion for this measure. This is a hospital level measure and the inclusion of these cases will not have a material impact on a hospital's rate and runs the risk of over coding fetal distress.

# 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

8. Board of Directors Vote: Y-X; N-X

## 9. Appeals

#### **Submission | Specifications**

**Description**: This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean birth. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

**Numerator Statement**: The outcome being measured is: Patients with cesarean births with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for cesarean birth as defined in Appendix A, Table 11.06 available at:

http://manual.jointcommission.org/releases/TJC2016A5B2/

**Denominator Statement**: The outcome target population being measured is: Nulliparous patients delivered of a live term singleton newborn in vertex presentation ICD-10-PCS Principal or Other Diagnosis Codes for delivery as defined in Appendix A, Tables 11.01.1 available at:

http://manual.jointcommission.org/releases/TJC2016A5B2/

**Exclusions**: • ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for multiple gestations and other presentations as defined in Appendix A, Table 11.09

- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Enrolled in clinical trials
- Gestational Age < 37 weeks or UTD</li>

Adjustment/Stratification: No risk adjustment or risk stratification

**Level of Analysis:** Facility, Population: National **Setting of Care:** Hospital/Acute Care Facility

Type of Measure: Outcome

**Data Source**: Paper Medical Records **Measure Steward**: The Joint Commission

# STANDING COMMITTEE MEETING [May/03/2016]

- 1. Importance to Measure and Report: The measure meets the Importance criteria
- (1a. Evidence, 1b. Performance Gap)
- 1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-23**; **M-3**; **L-0**; **I-0** Rationale:
  - The prior maintenance evaluation noted that "ACOG says this is the "optimal measure" for Cesarean section (C-section) because it focuses on first-time, uncomplicated pregnancy. The measure looks at the outcome of labor management. The developer reported that, "Among primary cesarean deliveries, more subjective indications (non-reassuring fetal status and arrest of dilation) contributed larger proportions than more objective indications (malpresentation, maternal-fetal, and obstetric conditions)." Cesarean sections are associated with increased risk of obstetric hemorrhage, uterine infection, and increased costs to the healthcare system.
  - The Committee questioned whether this measure should be classified as an intermediate outcome measure instead of an outcome measure.
  - The Committee highlighted that the Healthy People 2020 target is 23.9%, and the 2014 data with 1,388 hospitals reporting is 26.8%. Additionally, the Committee noted that the variation for this measure is quite large since the performance was 14% at the 10th percentile and 40% at the 90th percentile.

### 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-23; M-3; L-0; I-0 2b. Validity: H-10; M-14; L-2; I-0

Rationale:

- The developer has changed the specifications since the last NQF endorsement review. The specifications have been updated to ICD-10 CM and the initial patient population is now identified with ICD-10-PCS-Principal or Other Procedure Codes for delivery instead of diagnosis codes for pregnancy, since the ICD-10-CM Principal or Other Diagnosis Codes do not indicate whether the delivery took place during the hospitalization. Additionally, cases with a gestational age of "unable to be determined (UTD)" are excluded, since UTD is highly correlated with no prenatal care.
- The Committee expressed concerns about the exclusions, including babies in clinical trials. The developer stated that clinical trials have been removed as an exclusion.
- The measure was tested using inter-rater reliability (IRR) by the ORYX vendor, for 108 hospitals with 13,279 records. IRR is an appropriate method of assessing data element reliability for chart abstraction. The agreement rate for the data element "Gestational age" was 89.75% and the data element "Parity" was 97.43%. The Committee agreed the reliability of the measure was demonstrated, with the developer providing reliability testing at data element levels (2012).
- The developer reported that continued face validity was determined through feedback from measure users as well as a website that picks up questions and issues from the field, and addresses them in a continuous process of clarification and refinement.
- The measure received a pre-meeting comment regarding adjustment for various demographic variables. To address this, the developer provided data from 231 California hospitals showing that hospitals with a higher concentration of older moms (over 35 years) and higher concentration of moms who had a BMI 30 or higher just before being pregnant were distributed across hospitals with higher, medium, and lower range measure results. This finding suggested that there is not a pure risk amongage is not a significant factor women, but it depends on clinical practice and performance is driven by other factors of labor management.
- The developer noted that they would beare eliminating the age stratification effective July 1, 2016.
- The Committee requested that the developer consider a balancing measure that monitors potential unintended adverse consequences. The developer noted that NQF#0716 Unexpected Complications in the Term Newborn is being used in this manner in California, Oregon, and Washington.
- The Committee expressed concerns that lowering C-section rates too much can be as bad as higher C-section rates. There may be variations based on medical issues that affect whether the babies tolerate labor and whether labor goes smoothly in a timely fashion that does not exhaust the baby or the placental reserve.
- The Committee cautioned that tying payment to certain percentage of Cesarean birth rate (i.e., Healthy People 2020 target of 23.9%) might lead to bad outcomes.
- The Committee <u>discussed possibilities for risk-adjustment and</u> questioned whether contraindications for a vaginal delivery should be excluded from the measure moving forward. The developer clarified that they looked extensively at other diagnoses that could be contraindications for vaginal delivery such as placenta previa and HIV +, which are both included in the coding. The developer found only 56 cases in all of California that were coded as HIV with the several codes for HIV in pregnancy nulliparous to term, suggesting they were under coded. Additionally, only a few hospitals reported 2% 3% of their patients had placenta previa; half of those were delivered vaginally -- the coding was indicative of a placenta previa being present on ultrasound in the first or second trimester that was coded on the delivery chart. The developer emphasized that adding other diagnoses may result in coding issues that may or may not be real, which is one of the reasons why they decided to keep this measure simple with the highest quality codes.
- The Committee discussed further risk adjustment to be fair to the hospitals that have high-risk populations.

## 3. Feasibility: H-15; M-11; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

## Rationale:

• The Committee noted that the developer is working on an eMeasure that will be tested this year, which

would be a good addition.

• The Committee agreed all data elements are in defined fields in electronic sources. No concerns regarding feasibility were noted.

### 4. Usability and Use: H-21; M-6; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

- The measure is in use in The Joint Commission's Hospital Accreditation Program, is publically reported in the Joint Commission's Annual Report, America's Hospitals: Improving Quality and Safety, and is used for internal quality improvement via the Perinatal Care Certification program run by the Joint Commission. This measure is also included in the Medicaid Child Core Set.
- The Committee expressed the need to have this measure publicly reported beyond what is done
  voluntarily. The developer stated that their public reporting system is set up for process measures and
  they are trying to figure out how to accurately report this outcome measure publicly as well as some
  others, so that they make sense to the public.
- The Committee noted some challenges with reporting outcome measures such as determining the expected rate versus the actual rate and reporting that in a way that makes sense to people.

## 5. Related and Competing Measures

• This measure is similar to the newly submitted measure #2892: Birthrisk Cesarean Birth Measure. The Committee did not discuss the competing measure issue since NQF #2892 was not recommended.

# Standing Committee Recommendation for Endorsement: Y-26; N-1

#### Rationale

• The Committee agreed that this measure meets all the NQF criteria for endorsement.

### 6. Public and Member Comment

- This measure received 25 comments during the post comment period. Of these, 7 organizations
  commented in support of the Committee's recommendation, noting continued disparities in care, the
  risks associated with cesarean sections, and evidence-based processes to reduce Cesarean birth rates
  safely.
- The measure received 17 comments from 11 individuals disagreeing with the Committee's decision to recommend the measure. The concerns raised focused on two issues: the lack of risk adjustment in the measure and concerns over the Healthy People 2020 target rate of 23.9%. While this target rate was not set by the measure developer or NQF, a number of commenters indicated that without risk adjustment, this may not be an appropriate target. Commenters urged the measure to include risk adjustment for patient factors that impact the likelihood of Cesarean birth, including patient characteristics such as age or obesity, or medical factors such as diabetes, hypertensive disorders, LGA or SGA fetuses with/without growth restriction, etc.
- One commenter noted the need for more exclusions to cover cases where Cesarean births are medically
  indicated, such as "mal-presentation that could not be corrected, placenta previa, contracted pelvis,
  previous perineal reconstruction, fetal anomalies incompatible with vaginal birth, or other
  contraindications to vaginal birth."

# **Developer Responses**

• The Joint Commission has had numerous, detailed communications with the commenter on this subject, and is of the opinion that current evidence contradicts his contentions. The final decision to remove all risk-adjustment from this measure was made after submitting the measure to NQF and is based on evidence from two recent studies <sup>1,2</sup> which have shown that hospitals with a high maternal age population also have a low body mass index (BMI) and conversely, those with low maternal age have a high BMI (at the time of the first birth). Because when tested against a more robust risk adjusted model (age, BMI, race, hypertension, diabetes), the studies found differences limited to 1-2%, the Joint Commission's Perinatal Care Technical Advisory Panel has recommended using the simple cesarean birth

rates without further risk adjustment. Therefore, effective with discharges beginning July 1, 2016, The Joint Commission has removed all risk adjustments until such time as data are available demonstrating the need for risk adjustment and the feasibility of collecting any risk factors required.

<sup>1</sup> Caceres IA, Arcaya M, Declercq E, Belanoff CM, Janakiraman V, et al. (2013) Hospital Differences in Cesarean Deliveries in Massachusetts (US) 2004–2006:The Case against Case-Mix Artifact. PLoS ONE 8(3): e57817. doi:10.1371/journal.pone.0057817

<sup>2</sup> Main E. (2014) Nuliparous, Term, Singleton, Vertex (NTSV) Cesarean Birth Rates: extreme hospital variation is not changed by adjustment for case-mix. Oral Presentation: Pacific Coast Obstetrics and Gynecology Society

- The Cesarean Birth measure (PC-02) is designed to measure the rates of cesarean births among a subset of the general obstetric population of women while also keeping the burden of data collection to a minimum. The measure focuses on mothers having their first birth who are at the highest risk of primary cesarean birth when compared to mothers who have experienced a previous vaginal birth. By setting aside twins, breech presentations, and premature births, this measure focuses on a more homogeneous group of women where the greatest improvement opportunity exists. Because the measure focuses on nulliparous women with a term, singleton baby in a vertex position, the only exclusions to the denominator population are multiple gestations and presentations other than a vertex position, which are realized through the use of specific ICD-10-CM diagnosis codes found on Table 11.09 in Appendix A of the Specifications Manual for Joint Commission National Quality Core Measures. Extensive testing by The Joint Commission made it clear that there is no need to exclude for all known indications for performing cesareans, since these types of medical conditions are less common and would not significantly increase a hospital's adjusted cesarean rates. Maternal age, race, and weight are known cesarean risk factors for individuals but do not impact hospital PC-02 rates. Thus, including a comprehensive set of maternal medical exclusions would add data collection burden without commensurate benefit.
- There are also no ideal target rates for this outcome measure. Instead, the measure is designed to be an accurate way for leaders to identify whether a hospital's rate of cesarean births for women included in this select population is consistent with the rate of cesareans within this same population at another hospital. Hospitals whose cesarean birth measure rates are higher than they wish them to be are encouraged to explore and evaluate differences in the medical and nursing management of women in labor.
- Since there is currently no risk adjustment for this measure, inclusion of expected versus observed results is not indicated.
- The Joint Commission has not set this as a target for cesarean birth rates, nor does it establish benchmarks for any of its measures. The intent of this measure is for hospitals to understand their baseline rate of performance in order to determine if performance improvement efforts are indicated and, when they are, effective over time.

### Committee response

- During the post-comment call, the Committee reaffirmed that they recommend the measure with the age adjustment removed. The Committee agreed they did not have any concerns with the measure with the updated specifications. Committee members noted that measure #0716, Unexpected Complications in Term Newborn, is a balancing measure for this measure and could provide a signal for overzealous reductions in Cesarean birth rates.
- The Committee noted that the target rate mentioned in the comments is set by Healthy People 2020 and is not in the control of either The Joint Commission or NQF.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

# 0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge

# **Submission | Specifications**

**Description**: Percent of live newborn infants that receive Hepatitis B vaccination before discharge (or within 1 month of life, if the infant had an extended hospital stay) at each single hospital/birthing facility during given time period (one year).

**Numerator Statement**: The number of live newborn infants administered Hepatitis B vaccine prior to discharge (or within 1 month of life, if the infant had an extended hospital stay) from the hospital/birthing facility ("birth dose" of Hepatitis B vaccine).

**Denominator Statement**: The number of live newborn infants born at the hospital/birthing facility during the reporting window (one calendar year).

**Exclusions**: a. Determine number of live newborn infants born at the hospital/birthing facility whose parent/guardian refused Hepatitis B birth dose and exclude from the denominator. ICD-10 code for this information will include the following (link: http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z20-Z28/Z28-/#Z28):

i. Z28.82 Immunization not carried out because of caregiver refusal **Adjustment/Stratification**: No risk adjustment or risk stratification

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Other, Paper Medical

Records, Electronic Clinical Data: Pharmacy, Electronic Clinical Data: Registry

Measure Steward: Centers for Disease Control and Prevention

# STANDING COMMITTEE MEETING [05/02/2016]

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-18**; **M-8**; **L-0**; **I-0** Rationale:

- The developer submitted new evidence during this review, which includes 4 systematic reviews, that agree and demonstrate that hepatitis B vaccine administered shortly after birth effectively prevents perinatal hepatitis B transmission.
- Data from the 2014 National Immunization Survey shows the national Hepatitis B vaccine birth dose coverage overall was 72.4%.
- The developers provided disparities literature for the measure, that in the 22 states evaluated, approximately 16,500 births were estimated to be from HBV-infected women; 80.6% of these were foreign-born women.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-26**; **M-1**; **L-0**; **I-0** 2b. Validity: **Previous Validity Evaluation Accepted** Rationale:

- The developer removed the exclusion for parent refusal from the measure that was in the previous version of this measure. The CDC wants to measure the babies protected by vaccination. The Committee agreed with the change in specifications.
- The Committee found the specifications to be detailed and consistent with the evidence. The measure is specified for electronic clinical data, registry and abstraction from electronic health records with all the codes necessary to calculate the measure presented (ICD-9 CM and ICD-10 CM and CPT II codes).
- Reliability testing was conducted at the performance measure score. For measure score reliability, the score ranged from 0.981 and 1.000, indicating very high reliability, indicating that variability between hospitals regarding the Hepatitis B vaccine birth dose is due to actual performance differences rather than

# 0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge

measurement error. The Committee agreed the reliability testing provided was sufficient.

- Face validity of the measure score was assessed by a 22 member expert panel, with a 63.6% response rate, who agreed that the measure could distinguish quality of care.
- The Committee stressed that by excluding refusals to vaccinate within the denominator of the measure, the health community would have a more accurate vision of challenges facing vaccination. This would also encourage better communication and shared decision making between providers and patients. Members highlighted that while some facilities might have a measure performance score of 90%, they could potentially be excluding 50% of the measurement population.

## 3. Feasibility: H-20; M-7; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

### Rationale:

• The Committee agreed the measure is well specified and is in use by the New York City Department of Health and Mental Hygiene. Data elements are in defined fields in a combination of electronic sources and also in paper medical records, including EHRs.

# 4. Usability and Use: H-24; M-3; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

• The measure is currently used by the New York City Department of Health and Mental Hygiene. The developer presented data from the National Immunization Survey, demonstrating that Hepatitis B birth dose coverage has improved from 64.1% (+/-1.3) in 2010 to 72.4% (+/-1.5) in 2014.

### 5. Related and Competing Measures

No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-27; N-0

# Rationale

• The Committee recommended measure 0475: Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge for continued endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received**

• This measure received 4 comments, generally supporting endorsement. One comment noted that the measure as specified does not adequately reflect the immunization of infants who had deferred vaccination until the infant's first visit to the pediatrician. Another comment raised the issue that babies who are transferred for a higher level of care are often transferred prior to the birthing facility having the opportunity to administer the vaccine; the comment urged the exclusion of newborns who are transferred to a tertiary care facility. One of the supportive comments suggested that the measure be modified to "recommend educational material be provided to parents regarding efficacy of vaccines since some parents decide to not vaccinate".

### **Developer Response**

- We thank you for your response and agree that educational materials for parents are helpful. Vaccine Information Statements are required (by federal law) to be given to the patient, parent, or legal representative prior to administration of certain vaccines, including HepB vaccine. The Vaccine Information Statements provide information about the benefits and risks of specific vaccines, and include general information on vaccine efficacy (note that Vaccine Information Statements are generally written at a 10th grade reading level). Hospitals or birthing facilities may elect to provide additional information to parents regarding HepB vaccine efficacy.
- While we are open to excluding newborns who are transferred to a tertiary care facility from the

# 0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge

denominator, we feel that this is unnecessary. Overall, the number of infants transferred out of a hospital (compared to the total number of infants born at a hospital) is low. The numerator specifies number of infants administered HepB vaccine prior to discharge, or within 1 month of life if the infant had an extended hospital stay. The majority of infants needing a transfer will have an extended hospital stay, and therefore have ample opportunity to receive the birth dose at the receiving hospital. The birthing hospital could obtain records regarding HepB vaccine receipt from the receiving hospital and/or an immunization registry. As such, this issue should not affect the measure in any meaningful way.

• We agree that the measure would not reflect immunization of infants who had deferred vaccination until the infant's first visit to the pediatric office. However, delay of the HepB birth dose should occur only in very rare circumstances. The Advisory Committee on Immunization Practices states "on a case-by-case basis and only in rare circumstances, the first dose may be delayed until after hospital discharge for an infant who weighs greater than or equal to 2,000 grams and whose mother is HBsAg negative." Administration of a birth dose in the hospital (even without HBIG) serves as a safety net to prevent perinatal infection among infants born to positive mothers who are not identified because of errors in testing or reporting. Administration of a birth dose has also been associated with higher rates of on-time completion of the HepB vaccine series and improved completion rates for other vaccines.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

#### 0476 PC-03 Antenatal Steroids

#### **Submission | Specifications**

**Description**: This measure assesses patients at risk of preterm delivery at >=24 and <34 weeks gestation receiving antenatal steroids prior to delivering preterm newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

**Numerator Statement**: Patients with antenatal steroids initiated prior to delivering preterm newborns (refer to Appendix C, Table 11.0, antenatal steroid medications available at:

http://manual.jointcommission.org/releases/TJC2016A5B2/)

**Denominator Statement**: Patients delivering live preterm newborns with >=24 and <34 weeks gestation completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: http://manual.jointcommission.org/releases/TJC2016A5B2/

Exclusions: • Less than 8 years of age

- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Enrolled in clinical trials
- Documented Reason for Not Initiating Antenatal Steroids
- ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for fetal demise as defined in Appendix A, Table 11.09.1 available at: http://manual.jointcommission.org
- Gestational Age < 24 or >= 34 weeks or UTD

Adjustment/Stratification: No risk adjustment or risk stratification

**Level of Analysis:** Facility, Population: National **Setting of Care:** Hospital/Acute Care Facility

Type of Measure: Process

**Data Source**: Paper Medical Records **Measure Steward**: The Joint Commission

## **STANDING COMMITTEE MEETING [05/03/2016]**

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-7**; **M-14**; **L-5**; **I-0** Rationale:

- The developer reports that the measure has been changed to reflect the 2013 ACOG Practice Bulletin for Premature Rupture of Membranes that recommends antenatal steroids up to 34 weeks (change from 32 weeks).
- In January 2014, the measure became mandatory for all hospitals with more than 1,100 births per year. The measure performance increased from 54% in 2011 to 82% in 2014.
- The developer provides literature references rather than data from use of this measure. A 2011 report on births in California found that Hispanic mothers (25.6%), mothers younger than age 20 (27.6%), and those without prenatal care (52.2%) were less likely to receive antenatal steroids. Mothers giving birth vaginally (26.8%) and mothers with a diagnosis of fetal distress (26.5%) were also less likely to receive antenatal steroids.
- The Committee acknowledged that there is still a significant gap in performance.

## 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: M-22; L-3; I-0 2b. Validity: H-14; M-11; L-0; I-0

#### Rationale:

• The specifications were detailed and consistent with the evidence. The measure is specified for paper medical records, Vital Records reports, and delivery logs and clinical information systems. All the codes

#### 0476 PC-03 Antenatal Steroids

necessary to calculate the measure are presented (ICD-9 CM and ICD-10 CM and CPT II codes).

- The developer made the following updates to the measure specifications: The single numerator data element "Antenatal Steroids Administered" was changed to "Antenatal Steroids Initiated" to capture initiation of antenatal steroids instead of a full course. The denominator statement was changed from patients delivering live preterm newborns with >=24 and <32 weeks gestation completed to patients delivering live preterm newborns with >=24 and <34 weeks gestation based on the 2013 ACOG Practice Bulletin on Premature Rupture of Membranes (PROM).
- Reliability testing was conducted at the data element level. For data element reliability, the developer
  performed inter-rater reliability by ORXY vendor re-abstraction for 108 hospitals comprising 13,279
  records. The agreement rate for the data element "Antenatal steroids administered" was 99.16%.
- Empirical validity of the measure score was assessed using the Spearman rank-order correlation to correlate the results from this measure with other measures in the Joint Commission's perinatal set. The correlation of PC-03 with the other PC measures in the PC measure set indicates that the correlations with two other PC measures are moderate and statistically significant.
- The Committee questioned whether clinical trials will remain in the denominator exclusion. The developer confirmed that clinical trials will be removed as an exclusion.

## 3. Feasibility: H-15; M-10; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

## Rationale:

- The Committee agreed the measure is well specified for public reporting and accountability programs.
   According to the developer, "Hospitals using this performance measure generally collect measure data via manual review of the paper medical record, the EMR or a combination of both."
- The Committee did caution that data collection might be burdensome for smaller facilities.

## 4. Usability and Use: H-22; M-4; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

- The measure is currently used in public reporting and accountability programs such as Quality Check® and The Joint Commission's Hospital Accreditation Program. The Joint Commission presented ORYX performance measurement data demonstrating that the rate of patients receiving antenatal steroids prior to premature deliveries has improved from 63.3% in 2010 with 114 hospitals reporting to 91.6% in 2014 with 1,133 hospitals reporting.
- The developer reports on three unexpected findings during measure implementation:
  - Cases failed when the repeat dose of antenatal steroids was not given due to the delivery
    occurring prior to the routinely scheduled repeat dose being ordered. In response to this
    problem, the developer changed the data element "Antenatal Steroids Administered" to
    "Antenatal Steroids Initiated" to capture initiation of antenatal steroids instead of a full course.
  - o Patients who did not receive prenatal care were inappropriately included in the measure denominator, as the gestational age data element was abstracted as "UDT." In response to this, the developer removed "undetermined cases" from the measure denominator.
  - Hospitals have reported lower rates due to small denominator populations as a result of sampling. In response to this, the developer added Vital Records reports, delivery logs, and clinical information systems as acceptable data sources to help hospitals identify all cases with at least 24 and less than 34 weeks gestation, so that 100% of these cases could be reviewed to increase the denominator population size.

## 5. Related and Competing Measures

• No related or competing measures noted.

#### 0476 PC-03 Antenatal Steroids

# Standing Committee Recommendation for Endorsement: Y-26; N-0

## Rationale

• The Committee recommends measure 0476: PC-03 Antenatal Steroids for continued endorsement.

## 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received**

• Of the 5 comments received on this measure, 4 were fully in support. One comment raised concerns with the measure's numerator and denominator: first, with the denominator exclusion of "a documented reason for not giving steroids", pointing out that this could allow exclusions for facility structural issues, knowledge deficiencies on the part of the provider, or an "improper attitude" on the part of the provider or hospital unit. The comment also raised the issue of potential gaming, noting that the numerator captures use of steroids at any time, but they are optimally effective if given 24 hours to 7 days prior to early preterm birth.

## **Developer Response**

• The purpose of the measure is to evaluate that patients at risk of preterm delivery at >=24 and <34 weeks gestation receive antenatal steroids prior to delivering preterm newborns. The measure is not constructed to evaluate other aspects of established guidelines. Hospitals would need to use other measures or evaluation methods to determine adherence to additional guidelines.

## 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

#### **Submission | Specifications**

**Description**: Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia.

**Numerator Statement**: Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with either:

- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for other septicemia; or
- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for newborn septicemia or bacteremia and
- any secondary ICD-9-CM or ICD-10 CM diagnosis codes for staphylococcal or Gram-negative bacterial infection

#### **Denominator Statement**: All newborns and outborns with either:

- a birth weight of 500 to 1,499 grams (Birth Weight Categories 2, 3, 4 and 5); or
- any-listed ICD-9-CM or ICD-10 CM diagnosis codes for gestational age between 24 and 30 weeks; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and death (DISP=20); or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for operating room procedure; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for mechanical ventilation; or
- a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and transferring from another health care facility within two days of birth

See Pediatric Quality Indicators Appendices:

- Appendix A Operating Room Procedure Codes
- Appendix I Definitions of Neonate, Newborn, Normal Newborn, and Outborn
- Appendix L Low Birth Weight Categories

## **Exclusions**: Exclude cases:

- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis
- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis or bacteremia
- with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for staphylococcal or Gram-negative bacterial infection
- with birth weight less than 500 grams (Birth Weight Category 1)
- with length of stay less than 3 days
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

† Only for cases that otherwise qualify for the numerator.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

**Setting of Care:** Hospital/Acute Care Facility

**Type of Measure**: Outcome **Data Source**: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

#### STANDING COMMITTEE MEETING [05/02/2016]

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-14**; **M-9**; **L-0**; **I-0** Rationale:

- The developer reports that the evidence supporting this measure consists of 11 nonrandomized studies that demonstrate that effective preventive measures for decreasing blood infection "range from simple hand-washing protocols or closed medication delivery systems to more elaborate multidisciplinary quality improvement plans involving hand-washing, nutrition, skin care, respiratory care, vascular access, and diagnostic practices".
- The average hospital neonatal blood stream infection rate decreased from 11.53 per 1,000 in 2011 to
   9.15 per 1,000 in 2013. The Committee acknowledged that there is still a significant gap in performance, noting that there are disparities between urban and rural populations, and between Medicaid, private insurance and the uninsured.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

# 2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **Previous Validity Evaluation Accepted** Rationale:

- The specifications were detailed and consistent with the evidence. The measure is specified for administrative claims. All the codes necessary to calculate the measure are presented (ICD-9 CM and ICD-10 CM and CPT II codes).
- The developer updated the measure by adding data from the AHRQ 2013 Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID).
- Reliability testing was conducted at the measure score level. Signal to noise was utilized to assess the
  reliability of the measure. In 2013 for 943 hospitals comprising on average 72.3 discharges per hospital,
  reliability testing found a signal-to-noise average of 0.63.
- Face validity was assessed using a multi-specialty panel with a rating scale from 1 9. The panel agreed that the measure would be useful for rating the usefulness for internal QI improvement and for comparative purposes.
- This measure is risk adjusted. The developer utilized a multivariable model with covariates grouped into four categories, then estimated on the pediatric analytic data using a backward stepwise bootstrap approach. <u>C-statistic = 0.752.</u>

#### 3. Feasibility: Previous Feasibility Evaluation Accepted

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

- The Committee agreed the measure is well specified for public reporting and accountability programs.
- The Committee did not raise concerns about the feasibility of this measure.

# 4. Usability and Use: H-16; M-7; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

- The measure is currently used in public reporting and accountability programs including the Wisconsin Hospital Association (WHA) Information Center and the Wisconsin Hospital Association (WHA) Quality Indicators Report.
- The developer presented data exhibiting improved performance. The average hospital neonatal blood stream infection rate decreased from 11.53 per 1,000 in 2011 to 9.15 per 1,000 in 2013.

# 5. Related and Competing Measures

- This measure competes with #1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns and #0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates.
- The Committee had an extensive discussion on the 3 competing measures. NQF provided guidance on the related/competing measure process.
- The Joint Commission (TJC) and AHRQ have done some work on harmonization. TJC compared measures #1731, which uses partial chart review and administrative data, and #0478, which only uses administrative data, and found the measure using chart review was able to identify more cases that had not been included in #1731 due to coding issues. In addition, the #0478 measure excludes cases diagnosed 7 days or less after birth and measure #1731 excludes only 2 days or less, which they thought accounted for about 10% of the difference. (#0478 is now three days or less.) The Joint Commission stated that the measures are similar; however, since codes are not uniformly assigned, their measure, which also uses chart review, is able to identify more cases. However, this comparison was done using ICD-9 CM codes, and they think that that there will be less discrepancy between the two measures with the use of ICD-10 CM codes.
- AHRQ noted that they had made changes to #0478 based in part on the analysis done with TJC, that the
  measure will change with ICD-10 CM, and that the current versions are more aligned. In addition, #0478
  looks at all causes and cases of sepsis, while #1731 focuses on those associated with central lines. In
  addition, the AHRQ measure is not reported at a hospital level.
- A Committee member related some of the history of this measure, noting that the AHRQ measure was
  originally endorsed and brought into The Joint Commission's core set, and then turned into a clinical data
  measure. During the previous review and discussion of competing measures, Medicaid programs stated
  that they could not collect the data unless it was administrative, and that is why there were 2 endorsed
  measures.
- Committee members requested more information on the change to ICD-10 CM, in particular whether this would now have less chart review burden. The developer stated it was too soon to tell, especially with the learning curve associated with changing coding guidelines. It was also noted that with ICD-10 CM, "suspected" or "probable" is no longer included (cases are yes/no), which should reduce gaming.
- Committee members who are using the measure did not think chart review was a large burden due to the very small number of charts that have to be reviewed, and that hospitals would already be reviewing all of these charts as they work to reduce infection rates. Coding for neonatal sepsis is complicated and the chart review is used to make the measure more accurate. In addition, the developer noted, hospitals like to be able to exclude false positives. It was noted that false negatives are a larger issue.
- After discussion, the Committee felt there is not yet enough data on the performance of either measure
  under ICD-10 CM and that ICD-10 CM has the potential to reduce a lot of the burden associated with
  manual chart review. In addition, many new, smaller facilities (> 300 deliveries per year) are just
  beginning to report on this measure so current performance rates are not yet available (although these
  very small facilities are unlikely to be caring for these babies since they would be expected to be
  transferred).
- The Committee noted that EHRs are not yet to the point where this data can be automatically pulled out.
- The Committee then discussed the ways in which the VON measure, #0304, differs from the other 2 measures. Measure #0304 does not include babies more than 1,500 grams, and does include meningitis; however, the number of meningitis cases is not clear. Currently the measure requires either a positive blood or CSF culture and is not collected separately, although the developer agreed that might be a good idea. The VON measure is risk adjusted, which allows for more even comparisons across facilities. However, the major issue with the VON measure is that it is not publically reported and requires a registration fee.
- The Committee noted they were struggling with the question of whether one was best, especially with
  the changes to the measures. Committee members using the measures noted they focus on slightly
  different populations. For example, there are about 40,000 VLBW babies born each year and
  bloodstream infections are most prevalent in this population, but there larger babies at risk for infection

though the rates are lower. One Committee member stated that to actually move the needle, the VLBW babies are the target population, but only about a quarter of the NICUs in the country treat these babies, with the remaining three-fourths of NICUs treating LBW and premature babies. Another Committee member noted that focusing on the smaller, high-prevalence population misses the opportunity to improve processes and reduce infections in many facilities.

- Ultimately, due to the changes in the AHRQ measure, the update to ICD-10 CM, the expanded number of
  facilities reporting, and the slightly different populations included, the Committee agreed that for the
  time being all three measures should remain endorsed, since they are being used for different things. In
  terms of burden, it was noted that all high-level NICUs are already reporting to VON; that almost
  everyone has to report to The Joint Commission; and that there is no burden for hospitals for the AHRQ
  measure since it comes out of billing data and is reported by the state data organizations.
- The Committee requested that, for the next year, a specific effort be made to get the data from those facilities that collect and report on two or three of the measures in order to allow a more accurate comparison. VON noted that they do a member survey and will ask members that are collecting on the other measures as well. They also offered to work with The Joint Commission to compare the data.
- Committee members highlighted that while it is easy for them to understand the differences between the measures and rates, it may not be so clear to the public, and they reiterated the need for a single measure.
- The Committee requested that the developers provide more information and new data in 18 months for the Committee to relook at the measures during an off-cycle review. They further requested that the developers work together toward a single future measure.

# Standing Committee Recommendation for Endorsement: Y-22; N-1

#### Rationale

• The Committee agreed that this measure meets all the NQF criteria for endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received**

 One commenter submitted a comment on each of the 3 competing measures agreeing with the Committee's decision to recommend, but urging the developers to coordinate or combine measures.

#### Developer Response

• AHRQ appreciates the suggestion to compare the AHRQ, The Joint Commission (TJC), and Vermont Oxford Network's measures of neonatal blood stream infection, AHRQ's NQI 03 Neonatal Blood Stream Infection Rate (NQF 0478), TJC's PC-04 Health Care-Associated Bloodstream Infections in Newborns (NQF 1731), and Vermont Oxford Network's Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (NQF 0304). These three NQF endorsed measures were each developed for specific and different purposes and for different data sources, which has led to deviations in specifications. As noted in the NQF submission materials to the Perinatal Committee, AHRQ engaged with TJC to harmonize the measures NQF 0478 (AHRQ) and NQF 1731 (TJC) where possible. In some cases, differences in the data source or intended purpose of the measures favor measures that are not fully harmonized. In other cases, harmonization is feasible while maintaining the integrity of the measure for the intended use and data source. As suggested by the committee, AHRQ will continue to explore the feasibility and desirability of further harmonization of the measures.

## **Committee Response**

• The Committee agrees that harmonization of these 3 measures is important to reduce the burden of reporting. The developers have been directed to work together over the next 18 months to arrive at a single measure with supporting data, to be presented to the Committee during an off-cycle review.

# 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

- 8. Board of Directors Vote: Y-22; N-1
- 9. Appeals

#### 0480 PC-05 Exclusive Breast Milk Feeding

## **Submission | Specifications**

**Description**: PC-05 assesses the number of newborns exclusively fed breast milk during the newborn's entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns).

Numerator Statement: Newborns that were fed breast milk only since birth

**Denominator Statement**: Single term liveborn newborns discharged alive from the hospital with ICD-10-CM Principal Diagnosis Code for single liveborn newborn as defined in Appendix A, Table 11.20.1 available at: http://manual.jointcommission.org/releases/<del>TJC2015B2TJC2016A</del>/

Exclusions: • Admitted to the Neonatal Intensive Care Unit (NICU) at this hospital during the hospitalization

- ICD-10-CM Other Diagnosis Codes for galactosemia as defined in Appendix A, Table 11.21
- ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for parenteral infusion as defined in Appendix A, Table 11.22
- Experienced death
- Length of Stay >120 days
- Enrolled in clinical trials
- Patients transferred to another hospital
- Patients who are not term or with < 37 weeks gestation completed **Adjustment/Stratification**: No risk adjustment or risk stratification

**Level of Analysis:** Facility, Population: National **Setting of Care:** Hospital/Acute Care Facility

**Type of Measure**: Process

Data Source: Electronic Clinical Data, Paper Medical Records

Measure Steward: The Joint Commission

# STANDING COMMITTEE MEETING [05/03/2016]

## 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-X=18**; **M-5**; **L-1**; **I-0** Rationale:

- The goal for performance of the measure is 70%, and in over half of The Joint Commission hospitals that reported this measure, rates are less than 50%. In the 10<sup>th</sup> percentile, hospitals are at 22%.
- More hospitals are reporting now (1,400, up from 166), so there are more opportunities for improvement.
- Committee members noted concerns around patient choice, and that an issue with this measure is that it puts pressure on patients to breastfeed when it may not be appropriate due to circumstances outside the control of the hospital (for example, work circumstances that do not allow pumping).
- Committee members discussed the resources available for hospitals as they work to improve performance on this measure, such as toolkits, and that one key focus is training staff to ensure they are counseling patients appropriately.
- The Committee discussed the potential for a balancing measure.

#### 0480 PC-05 Exclusive Breast Milk Feeding

## 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: M-21; L-2; I-0 2b. Validity: H-8; M-12; L-2; I-0

#### Rationale:

- The measure was updated to ICD-10 CM. The sub-measure, exclusion of mothers who declined to breastfeed, was removed because stakeholders felt it was too much burden to get the data.
- Committee members discussed validity extensively, with one noting the measure reflects what patients
  chose to do, not the actual action or quality of care provided, and another stating that almost all
  measures can be said to reflect patient choices (for example, the choice to take medicine, have a
  procedure, etc.).
- One Committee member noted doubts about the validity of results when facilities report more than 95% rates, but the developer stated only one hospital reported rates that high, and reiterated the goal of 70%, noting that due to both choice and medical conditions, 100% is not the goal; however, many hospitals are at 70%. One Committee member noted that she audits hospitals and is confident in the data, even those reporting at high rates.
- Committee members were interested in the possibility of measures that report on percent still
  breastfeeding longer-term. Despite many limitations in women's ability to breastfeed long-term,
  Committee members noted that circumstances are improving and that this measure can be used to
  improve accommodations that allow more mothers to breastfeed for longer.
- A Committee member summarized the issue as the tension between pressure on mothers whose circumstances do not allow breastfeeding (such as women who have less than four weeks leave or who have jobs where they cannot pump) and keeping the threshold at 70% to move the nation forward.
- This is a population health measure with lifetime benefits. A Committee member stated that pressure on women has to do with a lack of process, and that in Baby-Friendly Hospitals it is easy to opt-out; therefore, pressure is a system issue that can be improved. Other Committee members agreed there are many process issues that can be addressed within the healthcare system.

#### 3. Feasibility: H-18; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

• The measure is used by Quality Check, The Joint Commission, the Hospital Inpatient Reporting Program; the Committee felt it was quite feasible.

# 4. Usability and Use: H-14; M-8; L-1; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

• As the measure is in use, there were no usability concerns.

# **5. Related and Competing Measures**

• No related or competing measures noted.

#### Standing Committee Recommendation for Endorsement: Y-21; N-2

# <u>Rationale</u>

The Committee agreed that this measure meets all the NQF criteria for endorsement.

# 0480 PC-05 Exclusive Breast Milk Feeding

# 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received**

A total of 13 comments were received on both the paper and electronic version of this measure.
 Comments were generally supportive of both the electronic and paper versions of the measure, but a number of concerns were raised, including issues around maternal choice, exclusions for the measure, and the need for implementation within a family-centered decision making process. Commenters also encouraged the development of a measure on longer-term breastfeeding.

### **Developer Response**

- This measure was designed as an in-patient quality measure. The Joint Commission has no means of tracking this post-discharge activity. Much evidence has now focused on the prenatal and intrapartum period as critical for the success of exclusive (or any) breastfeeding. (Centers for Disease Control and Prevention [CDC], 2007; Petrova et al., 2007; Shealy et al., 2005; Taveras et al., 2004).
- PC-05 does not exclude maternal medical conditions. These conditions are unusual (~2% of patients), and they cannot be modeled in the electronic Clinical Quality Measure (eCQM) version of PC-05. The removal of measure exclusions will also significantly reduce the burden of data abstraction. The revised measure is similar in construct to PC-02: Cesarean Birth, which reports the cesarean birth rate with no exclusions. As a result of some mothers declining exclusive breast milk feeding and by removing exclusions, The Joint Commission does not anticipate or expect that measure rates for PC-05 will reach near 100% as has been the case for many other measures. Available evidence suggests that a 70% threshold may be a more reasonable target for many organizations.
- It is important to note that The Joint Commission does not establish benchmarks for any of the core measures. The goal is for hospitals to understand their baseline rate of performance for each measure in order to determine if performance improvement efforts are effective over time when their baseline is higher or lower than the national performance (depending on the desired direction for improvement).

#### **Committee Response**

- The Committee agrees that measures of continued breastfeeding after hospital discharge are important and this has been added to the measure gaps list.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

### 0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity.

#### **Submission | Specifications**

**Description**: Proportion of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for screening for retinopathy of prematurity (ROP) by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge.

**Numerator Statement**: Number of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for ROP screening by the AAP and who received a retinal exam for ROP prior to discharge

**Denominator Statement**: All eligible infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for ROP screening by the AAP

Exclusions: 1. Infants outside the gestational age range of 22 to 29 weeks

- 2. Outborn infants admitted to the reporting hospital more than 28 days after birth
- 3. Outborn infants who have been home prior to admission
- 4. Infants who die in the delivery room or initial resuscitation area prior to admission to the neonatal intensive care unit
- 5. Infants not in the reporting hospital at the postnatal age recommended for ROP screening by the AAP

Adjustment/Stratification: Stratification by risk category/subgroup

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

**Type of Measure**: Process

**Data Source**: Electronic Clinical Data : Registry **Measure Steward**: Vermont Oxford Network

#### **STANDING COMMITTEE MEETING [May/02/2016]**

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-12**; **M-12**; **L-2**; **I-0** Rationale:

- This previously endorsed process measure from the Vermont Oxford Network (VON) assesses whether premature infants who are at risk for eye complications due to prematurity have had an eye evaluation prior to hospital discharge in alignment with guidelines from American Academy of Pediatrics.
- For the 916 hospitals in the VON network, average performance on this measure improved slightly, from 90.1% in 2006 to 91.8% in 2014.

## 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-8**; **M-16**; **L-2**; **I-0** 2b. Validity: **Previous Validity Evaluation Accepted** Rationale:

- The Committee noted that the data collected is a simple yes/no and does not include the date or gestational age.
- The Committee discussed alternative methods for the eye evaluation because of shortages of pediatric ophthalmologists in some areas.
- Reliability testing of the measure scores indicates higher reliability for larger sample sizes.

# 3. Feasibility: H-4; M-20; L-2; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

• For VON members, this measure requires chart abstraction and submission to VON, but the measure specifications can be used by any hospital to calculate their own performance.

# 0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity.

## 4. Usability and Use: H-5; M-15; L-6; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

- The measure is currently used only for internal QI within the membership of VON.
- The Committee was concerned that this measure is not publicly reported.

#### **5. Related and Competing Measures**

No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-24; N-2

#### Rationale

• Due to the importance of preventing eye problems for premature babies, the Committee recommended this measure for continued endorsement.

# 6. Public and Member Comment: June 7 – July 6, 2016

# **Comments Received:**

• This measure received one comment supporting endorsement.

## 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

#### **0716 Unexpected Complications in Term Newborns**

#### **Submission | Specifications**

**Description**: This is a hospital level performance score reported as the percent of infants with Unexpected Newborn Complications among full term newborns with no preexisting conditions, typically calculated per year.

**Numerator Statement**: Numerator: The numerator is divided into two categories: Severe complications and moderate complications.

Severe complications include neonatal death, transfer to another hospital for higher level of care, extremely low Apgar Scores (=3 at either 5 or 10 minutes of life), severe birth injuries such as intracranial hemorrhage or nerve injury, neurologic damage, severe respiratory and infectious complications such as sepsis. Parents of such babies may often worry about short or long term infant outcomes.

Moderate complications include diagnoses or procedures that raise concern but at a lower level than the list for severe (e.g. use of CPAP or bone fracture). For inclusion in the numerator, most require an infant length of stay that exceeds that of the mother, validating that these are indeed significant complications. Examples include less severe respiratory complications (e.g. Transient Tachypnea of the Newborn), or infections with a longer length of stay not including sepsis. As a "safety net" to capture cases who were under-coded, the numerator also includes infants who have a prolonged length of stay of over 5 days to capture the "seemingly normal" infants with neither any form of jaundice nor a social reason for staying in the hospital (e.g. family disruption or adoption).

**Denominator Statement**: The denominator is comprised of singleton, live born babies who are at least 37.0 weeks of gestation, and over 2500g in birth weight. The denominator excludes most serious fetal conditions that are "preexisting" (present before labor), including prematurity, multiple gestations, poor fetal growth, congenital malformations, genetic disorders, other specified fetal and maternal conditions and infants exposed to maternal drug use in-utero. The final denominator population consists of babies who are expected to do well following labor and delivery and go home routinely with their mothers.

Exclusions: a) Babies not born in hospitals are excluded as this is a hospital quality performance measure

- b) Babies who are part of multiple gestation pregnancies are excluded.
- c) Premature infants (babies born before 37 weeks gestational age) are excluded
- d) Low birth weight babies (<=2500g) are excluded
- e) Babies with congenital malformations and genetic diseases are excluded
- f) Babies with pre-existing fetal conditions such as IUGR are excluded
- g) Babies who were exposed to maternal drug use in-utero are excluded

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Integrated Delivery System, Population: Regional, Population: State

**Setting of Care:** Hospital/Acute Care Facility

Type of Measure: Outcome

**Data Source**: Administrative claims

Measure Steward: California Maternal Quality Care Collaborative

#### STANDING COMMITTEE MEETING [May/02/2016]

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

# 1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-16**; **M-8**; **L-0**; **I-0** Rationale:

- This maintenance measure was originally endorsed in 2012 as a measure titled Healthy Term Newborn. It has since been inverted to report on the unexpected outcomes for healthy, full-term newborns. The revised measure reports the same information in a different format. The developer noted that performance rates on the previous measure were 94-97% and while this reflects strong performance, they wanted to focus attention on the 3-6% of babies that have unexpected complications, so they reversed the measure.
- Committee members reviewed the 2013 and 2014 data submitted by the developer and noted there is

#### **0716 Unexpected Complications in Term Newborns**

still room for improvement, although the rate is not expected to be zero. Committee members discussed some of the reasons for variation, including how neonatal sepsis is handled. It was also noted that African American women have slightly higher rates.

• They also noted the need for a measure that looks at healthy pregnancies.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: Previous Reliability Evaluation Accepted 2b. Validity: H-18; M-7; L-0; I-0

#### Rationale:

- The Committee had questions about the exclusions and risk adjustment, noting that outcomes can be affected by the patient's health as opposed to provider actions. The developer explained they had reviewed adjusting for hypertension, diabetes, birth weight, and a variety of other factors, but they found that only insulin-requiring, pre-gestational diabetics were at risk.
- The developer noted that this measure is most useful as a balancing measure: a measure used for following a hospital over time as they change practices, to ensure that outcomes are worsened, rather than comparing a performance of 5% vs. 4% to rank hospitals.
- Committee members noted the new reliability testing was useful but requested more information on the number of deliveries cutoff. The developer explained that less than 200 births annually was too small to provide accurate information; that 200-500 births is a "grey zone" in that the reliability is lower, but the measure is still useful for comparing performance over time. The Committee and developer agreed that in hospitals with small numbers the measure is a "case finding tool" and that most deliveries are happening in hospitals with more than 500 births annually, where the measure is reliable.
- New empirical validity testing compared the results of this measure to a similar measure from the National Perinatal Information Center (admissions to NICU) and found similar results. Also, in 3 hospital quality improvement projects trying to reduce the Cesarean birth rate, this measure declined thus offering reassurance that there were not unintended consequences for the baby.
- The data source is administrative claims linked to Vital Statistics; unlike the underused ICD codes for gestational age, the birth certificate data fields for "Best Obstetric Gestational Age" and "Birthweight" have high degrees of completeness and accuracy.

#### 3. Feasibility: H-16; M-8; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

- This measure has complicated numerators and denominators and the Committee had some questions about how it was implemented, especially at small hospitals. The developer explained that it was easier to implement at higher levels of analysis using state data.
- Committee members who are currently using the measure in large systems noted that it was feasible to use and not too difficult to set up.

# 4. Usability and Use: H-21; M-4; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

- The measure is currently in use in several states, including California, Washington, Oregon, Alaska, and Montana.
- The Committee noted the addition of birth certificate data makes the measure easier to use.
- It was also noted that the reframing makes it a more consumer-friendly measure.

## **5. Related and Competing Measures**

• No related or competing measures noted.

# **0716 Unexpected Complications in Term Newborns**

# Standing Committee Recommendation for Endorsement: Y-25; N-0

# Rationale

• The Committee agreed that this measure meets all the NQF criteria for endorsement.

# 6. Public and Member Comment: June 7 – July 6, 2016

# **Comments Received:**

• This measure received one comment supporting endorsement.

# 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

## 1382 Percentage of low birthweight births

## **Submission | Specifications**

**Description**: The percentage of births with birthweight <2,500 grams

Numerator Statement: The number of babies born weighing <2,500 grams at birth in the study population

**Denominator Statement**: All births in the study population

Exclusions: None

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Population: County or City, Population: National, Population: Regional

Setting of Care: Hospital/Acute Care Facility, Other

Type of Measure: Outcome

Data Source: Patient Reported Data/Survey

Measure Steward: Centers for Disease Control and Prevention

# STANDING COMMITTEE MEETING [May/02/2016]

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Previous Evidence Evaluation Accepted; 1b. Performance Gap: H-15; M-9; L-1; I-0

# Rationale:

- This is a population-level measure monitored by the National Center for Health Statistics.
- The Committee noted that there is little variability at any moment in time, but that in the US there has been a downward trend in the incidence of low birthweight, suggesting that incidence of low birthweight is modifiable, as well as the fact that US levels are very different from those seen in other countries.
- The Committee highlighted that there is substantial opportunity for improvement in this measure since rates have edged down only slightly over the last few years, and there are substantial variations across race and ethnicity.
- The Committee questioned whether the developer considered gestational age since the US ranks very low among industrial countries in terms of infant mortality rate and maternal mortality rate.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

# 2a. Reliability: **Previous Reliability Evaluation Accepted** 2b. Validity: **Previous Validity Evaluation Accepted** Rationale:

- The Committee agreed the underlying method and results for the measure had not significantly changed since the last NQF endorsement review. Data element validity was assessed by direct comparison of birth certificate data to medical records. Sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were computed.
- Data element validity tested against a "gold standard" such as the medical record also counts for reliability. The Committee accepted the validity testing conducted at the data element level for the last NQF endorsement review.
- The Committee accepted the prior evaluation of the reliability and validity criteria without further discussion.

#### 3. Feasibility: H-24; M-1; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale

 The Committee agreed the measure is feasible since the data are collected by law and is universally available.

## 1382 Percentage of low birthweight births

## 4. Usability and Use: H-18; M-7; L-1; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

- This measure is publicly reported by the CDC National Vital Statistics System.
- The Committee noted that this measure assesses perinatal healthcare in general rather than specific providers, yet it is important to measure and track. For example, from a public health and planning point of view, it is helpful to know how many babies are going to need NICU follow up and potentially, future support services; this measure can assist in predicting that need.
- Some Committee members noted that birth certificate data are not very reliable for many of the maternal indicators. However, birthweight and gestational age are quite accurate on the birth certificate.

# 5. Related and Competing Measures

• No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-26; N-0

#### Rationale

• The Committee agreed that this measure meets all the NQF criteria for endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

# **Comments Received:**

• This measure received 4 comments, 2 of which were fully supportive. One comment suggested replacing birthweight with gestational age, as that is now widely available. The fourth comment did not agree with the recommendation for endorsement, noting "this measure has not influenced outcome over the past several years in US", and that "Additional maternal and neonatal info would be necessary to provide any meaningful outcomes."

# **Developer Response:**

• Agree, gestational age is now a better measure of outcome and should replace this measure.

# **Committee Response**

• The Committee agrees with the commenter and developer that a measure of gestational age would be a better outcome measure, and this has been added to the measure gaps list. However, since that measure does not currently exist and is not development, the Committee elected to continue to recommend this measure as they agreed it is an important topic.

# 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

#### **Submission | Specifications**

**Description**: This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).

Numerator Statement: The outcome being measured is: Newborns with septicemia or bacteremia with ICD-10-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Confirmed OR ICD-10-CM Other Diagnosis Codes for sepsis as defined in Appendix A, Table 11.10.1 with a Bloodstream Infection Confirmed available at:

http://manual.jointcommission.org/releases/TJC2016A5B2/

The only national hospital quality measure currently requiring patient-level risk adjustment is the Health Care-Associated Bloodstream Infections in Newborns (PC-04) outcome measure in the perinatal care measure set.

**Denominator Statement**: The outcome target population being measured is: Liveborn newborns with ICD-10-CM Other Diagnosis Codes for birth weight between 500 and 1499g as defined in Appendix A, Table 11.12, 11.13 or 11.14 OR Birth Weight between 500 and 1499g OR ICD-10-CM Other Diagnosis Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15 or 11.16 OR Birth Weight = > 1500g who experienced one or more of the following:

o Experienced death

o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18

o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19

o Transferred in from another acute care hospital or health care setting within 2 days of birth.

Exclusions: • ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias as defined in Appendix A, Table 11.10.2

- ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as defined in Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Present on Admission
- ICD-10-CM Other Diagnosis Codes for birth weight < 500g as defined in Appendix A, Table 11.20 OR Birth Weight < 500g
- Length of Stay < 2 days
- Enrolled in clinical trials

Adjustment/Stratification: Statistical risk model Level of Analysis: Facility, Population: National Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

**Data Source**: Paper Medical Records Measure Steward: The Joint Commission

### STANDING COMMITTEE MEETING [May/03/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Previous Evidence Evaluation Accepted; 1b. Performance Gap: H-17; M-5; L-1; I-0 Rationale:

It was generally agreed there is still a significant opportunity for improvement on performance with this

measure. The Committee noted the increase in the gap since 2011, and the developer explained that in 2014 this measure became mandatory for all hospitals with more than 1,100 births annually (as of 2016, it is now all hospitals with more than 300 births). With 1,000 more hospitals reporting, more cases are

identified.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: M-22; L-1; I-0 2b. Validity: H-14; M-9; L-0; I-0

#### Rationale:

- The measure has been updated to ICD-10 CM.
- There have been changes to the specifications. The numerator included population now requires a check to confirm that the bloodstream infection was health care-associated after the first 48 hours when infection codes are present on Table 11.10 or 11.10.1 with a new data element Bloodstream Infection Confirmed, since infection codes are also applied for infections resulting from other newborn medical conditions that are not health care—associated, i.e., necrotizing enterocolitis, pneumonia, urosepsis, etc. The exclusion for hospitalization greater than 120 days was removed and another exclusion was added to exclude newborns with bloodstream infection present on admission. The Committee had no concerns with the changes.
- The measure is risk-adjusted using 6 factors: two birthweight categories, transfers out or died, congenital anomalies of the GI or CV systems and transfers in. The C-statistic is 0.654.
- Race and ethnicity were SDS factors found to be statistically significant in the risk model, changing the c-statistic to 0.702. Race and ethnicity were not included in the final model.
- This measure does not correlate with the other measures in the Joint Commission perinatal core set, but the Committee agreed that would not be expected.

#### 3. Feasibility: H-15; M-8; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

• The Committee had no concerns about the feasibility.

## 4. Usability and Use: H-15; M-8; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

• Committee members noted the measure has been improved, with expanded data sources, and some changes to the specifications. The developer noted that the new version of the measure should be more accurate but they could not yet compare the newest data with data from the prior version.

# **5. Related and Competing Measures**

- This measure competes with #0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates and #0478: Neonatal Blood Stream Infection Rate (NQI 03) (AHRQ).
- The Committee had an extensive discussion on the 3 competing measures. NQF provided guidance on the related/competing measure process.
- The Joint Commission (TJC) and AHRQ have done some work on harmonization. TJC compared #1731, which uses partial chart review and administrative data, and #0478, which uses only administrative data. They found the measure using chart review was able to identify more cases that had not been included in the other measure due to coding issues. In addition, #0478 excludes cases diagnosed 7 days or less after birth and #1731 excludes only 2 days or less, which they thought accounted for about 10% of the difference. (#0478 is now three days or less.) The Joint Commission stated that the measures are similar; however, since codes are not uniformly assigned, their measure, which also uses chart review is able to identify more cases. This comparison was done using ICD-9 CM codes, and they think that there will be less discrepancy between the two measures with the use of ICD-10 CM codes.
- AHRQ noted that they had made changes to #0478 based in part on the analysis done with TJC, that the
  measure will change with ICD-10 CM, and that the current versions are more aligned. In addition, #0478
  looks at all causes and cases of sepsis, while #1731 focuses on those associated with central lines. In

addition, the AHRQ measure is not reported at a hospital level.

- A Committee member related some of the history of this measure, noting that the AHRQ measure was
  originally endorsed and brought into The Joint Commission's core set, and then turned into a clinical data
  measure. During the previous review and discussion of competing measures, Medicaid program
  representatives stated that they could not collect the data unless it was administrative, and that is why
  there were two endorsed measures.
- Committee members requested more information on the change to ICD-10 CM, in particular questioning if this would now have less chart review burden. The developer stated it was too soon to tell, especially with the learning curve associated with changing coding guidelines. It was also noted that with ICD-10 CM, "suspected" or "probable" is no longer included (cases are yes/no) which should reduce gaming.
- For the chart review, Committee members who are using the measure did not think it was a large burden due to the very small number of charts that have to be reviewed, and that hospitals would be reviewing all of these charts as they work to reduce infection rates. Coding for neonatal sepsis is complicated and the chart review is used to make the measure more accurate. In addition, the developer noted, hospitals like to be able to exclude false positives. It was noted that false negatives are a larger issue.
- After discussion, the Committee felt there is not yet enough data on the performance of either measure
  under ICD-10 CM and that ICD-10 CM has the potential to reduce burden associated with manual chart
  review. In addition, many new, smaller facilities (>300 deliveries per year) are just beginning to report on
  this measure so current performance rates are not yet available (although these very small facilities are
  unlikely to be caring for these babies, who would be transferred).
- The Committee noted that EHRs are not yet to the point where these data can be automatically pulled out.
- The Committee then discussed the ways in which the VON measure, #0304, differs from the other two. 0304 does not include babies more than 1,500 grams, and does include meningitis; however, it is not clear the size of that group. Currently the measure requires either a positive blood or CSF culture and is not collected separately, although the developer agreed that might be a good idea. The VON measure is risk adjusted, which allows for more even comparisons across facilities. However, the major issue with the VON measure is that it is not publically reported and requires a registration fee.
- The Committee noted they were struggling with the question of whether one was best, especially with the changes to the measures. Committee members using the measures noted they focus on slightly different populations. For example, there are about 40,000 VLBW babies born in each year and bloodstream infections are most prevalent in this population, but larger babies born are also at risk for infection even if the infection rates are smaller. One Committee member stated that to actually move the needle, the VLBW babies are the target population, but only about a quarter of the NICUs in the country treat these babies, with the remaining three-fourths of NICUs treating LBW and premature babies.

  Another Committee member noted that focusing on the smaller, high-prevalence population misses the opportunity to improve processes and reduce infections in many facilities.
- Ultimately, due to the changes in the AHRQ measure, the update to ICD-10 CM, the expanded number of
  facilities reporting, and the slightly different populations included, the Committee agreed that for the
  time being all three measures should remain endorsed, since they are being used for different things. In
  terms of burden, it was noted that the high-level NICUs are all already reporting to VON; that almost
  everyone has to report to the Joint Commission; and that there is no burden for hospitals for the AHRQ
  measure since it comes out of billing data and is reported by the state data organizations.
- The Committee requested that, for the next year, a specific effort be made to get the data from those facilities that collect and report on two or three of the measures in order to allow a more accurate comparison. VON noted that they do a member survey and they will ask members that are collecting on the other measures as well. They also offered to work with The Joint Commission to compare the data.
- Committee members highlighted that while it is easy for them to understand the differences between the
  measures and rates, it may not be so clear to the public, and they reiterated the need for a single
  measure.

• The Committee requested that the developers provide more information and new data in 18 months for the Committee to relook at the measures during an off-cycle review. They further requested that the developers work together toward a single measure.

#### Standing Committee Recommendation for Endorsement: Y-23; N-0

#### Rationale

The Committee agreed that this measure meets all the NQF criteria for endorsement.

#### 6. Public and Member Comment: June 7- July 6, 2016

#### **Comments Received:**

• One commenter submitted a comment on each of the 3 measures agreeing with the Committee's decision to recommend, but urging the developers to coordinate or combine measures.

# **Developer Response:**

• Thank you for your feedback. We have done extensive work and these measures have been harmonized to the extent possible at this time.

#### **Committee Response**

- The Committee agrees that harmonization of these 3 measures is important to reduce the burden of reporting. The developers have been directed to work together over the next 18 months to arrive at a single measure with supporting data, to be presented to the Committee during an off-cycle review.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

#### 0469: 2829 PC-01 Elective Delivery

#### **Submission | Specifications**

**Description**: This measure assesses patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). PC-01, Elective Delivery is one of two of the measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.

Numerator Statement: Patients with elective deliveries by either:

- Medical induction of labor while not in labor prior to the procedure
- Cesarean birth while not in labor and with no history of a prior uterine surgery

**Denominator Statement**: The Denominator is patients who deliver newborns with >= 37 and < 39 weeks of gestation completed.

**Exclusions**: ICD-9-CM, ICD-10-CM, or SNOMED CT codes for conditions possibly justifying elective delivery prior to 39 weeks gestation.

Adjustment/Stratification: No risk adjustment or risk stratification

**Level of Analysis:** Facility, Population: National **Setting of Care:** Hospital/Acute Care Facility

**Type of Measure**: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Electronic Clinical Data:

**Pharmacy** 

Measure Steward: The Joint Commission

# STANDING COMMITTEE MEETING [May/03/2016]

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Previous Evidence Evaluation Accepted; 1b. Performance Gap: H-10; M-13; L-2; I-0

# Rationale:

- This measure is the eMeasure version of NQF#480 and the information for evidence and opportunity for improvement is the same:
  - o The developer did not submit new evidence during this review, but Committee members noted that ACOG recently reaffirmed the practice bulletin for timing of elective induction of labor.
  - While the performance is improving, there is still a gap in care in this area, and Committee
    members noted that as of January 2016, more hospitals are reporting on this measure (now 80%
    of all birthing hospitals), so they expect more variation to appear. Committee members noted
    that one of the major drivers of morbidity was repeat elective C-sections at 37 weeks, and that
    number had dropped significantly.

#### 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: M-22; L-2; I-1 2b. Validity: M-23; L-1; I-1

# Rationale:

- NQF eMeasure technical review found this eMeasure to have appropriate specifications and value sets, and an adequate feasibility assessment that addressed the data elements and measure logic.
- The developer explained that because this measure was tested using BONNIE simulated data set, the testing was looking to confirm that the measure specifications are accurately implemented and that the measure performs as it should.
- Since there is no sampling with the eMeasure and 100% of cases are used, performance should be more reliable.

#### 0469: 2829 PC-01 Elective Delivery

Actual performance information is not yet available to compare with the paper version of the measure.
Thus far, 7 hospitals submitted data on 2015 performance in March 2016, and 69 hospitals will submit
2016 data in 2017. Committee members noted the importance of good training for coders as the
measure is implemented.

# 3. Feasibility: H-2; M-16; L-0; I-7

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

• Given the limited use of the measure thus far, the Committee found it difficult to comment on feasibility. The developer noted that some of the major EHR vendors submit feedback on the eMeasures each year and they are using that feedback to improve the measure.

# 4. Usability and Use: H-21; M-4; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

## Rationale:

• The Committee thought the usability of the eMeasure would be similar to the medical record abstraction measure.

### 5. Related and Competing Measures

• No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-22; N-3

#### Rationale

• The Committee agreed that this measure meets all the NQF criteria for endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received:**

A total of 12 comments were received on both versions of the measure. Generally, the comments were
in support, and several noted that while rates have improved, much remains to be done. However, a
pair of comments noted concerns with the measure exclusions. A second pair of comments noted that
elective delivery/induction may be preferable in very rural areas that lack access to secondary and
tertiary facilities.

#### **Developer Response:**

- Over the last several years The Joint Commission has responded to suggestions from the obstetrics community to adjust the specifications for PC-01: Elective Delivery to allow for a wider array of exclusions. Some of these have resulted in new ICD codes being added and others have required the addition of new exclusions that can only be determined by chart reviews (an unfortunate but currently needed situation). The Joint Commission continues to receive numerous requests for "appeals" and new exclusions which are uncommon or rare conditions justifying the need for an early-term elective delivery. While many of these conditions have been incorporated into the current PC-01 specifications, medical issues are varied enough that it is impossible to enumerate 100% of the potential circumstances that could justify an early-term elective delivery. For example, a mother with a malignancy and need to start chemotherapy might require a delivery before 39 weeks. Although these cases are rare their occurrence can be such to generate an early-term elective delivery rate of 2-4%. This supports the rationale for not expecting this measure to consistently reach 0% elective deliveries. The Joint Commission has worked closely with a technical advisory panel (TAP) since the inception of this project. The TAP is comprised of leading national perinatal care experts including obstetricians, pediatricians, neonatologists and nurse clinicians. Recently, the TAP reaffirmed the goal of 5% which is supported by the 2013 study by Clark, et. al, validating the denominator exclusion criteria for PC-01.
- There are currently 2 sets of ICD-10-CM diagnosis codes on Table 11.07 which should be used for prelabor (preterm) rupture of membranes: the first set is 042.011, 042.012, 042.013, 042.02, 042.911, 042.912, 042.913 and 042.92 and for prolonged rupture: the second set is 042.111, 042.112, 042.113

# 0469: 2829 PC-01 Elective Delivery

and O42.12. The coders should be applying these codes when there is appropriate documentation that SROM occurred without commencement of labor. As a result the case would be excluded from the measure. Documentation of spontaneous rupture of membranes without onset of labor should be taken at face value according to ACOG. The 2013 ACOG definition of Preterm Rupture of Membranes (PROM is rupture of membranes before the onset of labor. Membrane rupture that occurs before 37 weeks of gestation is referred to as preterm PROM. Membrane rupture that occurs at 37 weeks of gestation or later is referred to as term PROM. In 2014, ACOG re-named premature rupture of membranes to prelabor rupture of membranes in order to further clarify the meaning of PROM. We consider ACOG an authoritative source. Based on the ACOG definition one of the codes from the first set applies to all cases with SROM regardless of gestational age, and only the absence of labor should be required to use this code. If the ruptured membranes are >24 hours then one of the codes from the second set applies."

- Requiring gestational age and careful scrutiny (chart reviews) for exclusions does preclude the use of
  claims data but there is progress in creating an eMeasure version. However, because of the small
  sample size for this measure for a given health plan within a given hospital it will unlikely be a practical
  measure at the plan level.
- Thank you for the support. We agree that measures of patient engagement and documentation of consent would be an attractive next step but we don't have measures fully developed in those areas yet.
- While this has been proposed as a potential concern, rural hospitals in general have done very well on this measure. In general there are few logistical reasons that truly need elective delivery prior to 39 weeks of gestation. In any case, the federal mandate for reporting of this measure for MediCare P4P specifically excludes Critical Access Hospitals.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

# 480: 2830 PC-05 Exclusive Breast Milk Feeding

#### **Submission | Specifications**

**Description**: PC-05 assesses the number of newborns exclusively fed breast milk during the newborn's entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns). PC-05, Exclusive Breast Milk Feeding, is one of two measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.

Numerator Statement: Newborns that were fed breast milk only since birth

**Denominator Statement**: Single term newborns discharged from the hospital who did not have a diagnosis of galactosemia, were not subject to parenteral nutrition, and had a length of stay of less than or equal to 120 days

Exclusions: - Newborns who were admitted to the Neonatal Intensive Care Unit (NICU)

Newborns who were transferred to an acute care facility

Newborns who expired during the hospitalization

Adjustment/Stratification: No risk adjustment or risk stratification

**Level of Analysis:** Facility, Population: National **Setting of Care:** Hospital/Acute Care Facility

**Type of Measure**: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record

Measure Steward: The Joint Commission

#### **STANDING COMMITTEE MEETING [May/03/2016]**

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Previous Evidence Evaluation Accepted**; 1b. Performance Gap: **H-0=18**; **M-5**; **L-1**; **I-0** Rationale:

- As this is the eMeasure version of measure 0480: Exclusive Breast Feeding, the information for evidence and gap are the same:
  - The goal for performance of the measure is 70%, and in over half of The Joint Commission hospitals that reported this measure, rates are less than 50%. In the 10th percentile, hospitals are at 22%.
  - More hospitals are reporting now (1,400, up from 166), so there are more opportunities for improvement.
  - Committee members noted concerns around patient choice, and that one issue with this measure is that it puts pressure on patients to breastfeed when it may not be appropriate due to circumstances outside the control of the hospital (for example, work circumstances that do not allow pumping).
  - O Committee members discussed the resources available for hospitals as they work to improve performance on this measure, such as toolkits, and that one key focus is training staff to ensure they are counseling patients appropriately.
  - The Committee discussed the potential for a balancing measure.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: M-17; L-1; I-1 2b. Validity: M-15; L-4; I-0

#### Rationale:

- NQF eMeasure technical review found this eMeasure to have appropriate specifications and value sets, and an adequate feasibility assessment that addressed the data elements and measure logic.
- This eMeasure has been tested through BONNIE and as such, the Committee noted similar concerns as with the other eMeasures. During the BONNIE testing, 528 cases passed at 100%.

#### 480: 2830 PC-05 Exclusive Breast Milk Feeding

• It has HQMF specifications, was vetted through USAC, and is used in meaningful use, so the Committee agreed the quality construct is present and the measure meets the scientific acceptability criteria.

# 3. Feasibility: H-18; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

• Given the limited use of the measure thus far, the Committee found it difficult to comment on feasibility. The developer noted that some of the major EHR vendors submit feedback on the eMeasures each year and they are using that feedback to improve the measure.

# 4. Usability and Use: H-14; M-8; L-1; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

 The Committee thought the usability of the eMeasure would be similar to the medical record abstraction measure.

## 5. Related and Competing Measures

• No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-18; N-2

# Rationale

The Committee agreed that this measure meets all the NQF criteria for endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received:**

A total of 13 comments were received on the paper and electronic version of these measures.
 Comments were generally supportive of both the electronic and paper versions of the measure, but a number of concerns were raised, including issues around maternal choice, exclusions for the measure, and the need for implementation within a family-centered decision making process. Commenters also encouraged the development of a measure on longer-term breastfeeding.

# **Developer Response:**

- This measure was designed as an in-patient quality measure. The Joint Commission has no means of tracking this post-discharge activity. Much evidence has now focused on the prenatal and intrapartum period as critical for the success of exclusive (or any) breastfeeding. (Centers for Disease Control and Prevention [CDC], 2007; Petrova et al., 2007; Shealy et al., 2005; Taveras et al., 2004).
- PC-05 does not exclude maternal medical conditions. These conditions are unusual (~2% of patients), and they cannot be modeled in the electronic Clinical Quality Measure (eCQM) version of PC-05. The removal of measure exclusions will also significantly reduce the burden of data abstraction. The revised measure is similar in construct to PC-02: Cesarean Birth, which reports the cesarean birth rate with no exclusions. As a result of some mothers declining exclusive breast milk feeding and by removing exclusions, The Joint Commission does not anticipate or expect that measure rates for PC-05 will reach near 100% as has been the case for many other measures. Available evidence suggests that a 70% threshold may be a more reasonable target for many organizations.
- It is important to note that The Joint Commission does not establish benchmarks for any of the core measures. The goal is for hospitals to understand their baseline rate of performance for each measure in order to determine if performance improvement efforts are effective over time when their baseline is higher or lower than the national performance (depending on the desired direction for improvement).

## **Committee Response**

• The Committee agrees that measures of continued breastfeeding after hospital discharge are important and this has been added to the measure gaps list.

# 480: 2830 PC-05 Exclusive Breast Milk Feeding

- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

# 2902 Contraceptive Care – Postpartum

#### **Submission | Specifications**

**Description**: Among women ages 15 through 44 who had a live birth, the percentage that is provided:

- 1) A most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS)) or moderately (i.e., injectables, oral pills, patch, ring, or diaphragm) effective method of contraception within 3 and 60 days of delivery.
- 2) A long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery.

Two time periods are proposed (i.e., within 3 and within 60 days of delivery) because each reflects important clinical recommendations from the U.S. Centers for Disease Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG). The 60-day period reflects ACOG recommendations that women should receive contraceptive care at the 6-week postpartum visit. The 3-day period reflects CDC and ACOG recommendations that the immediate postpartum period (i.e., at delivery, while the woman is in the hospital) is a safe time to provide contraception, which may offer greater convenience to the client and avoid missed opportunities to provide contraceptive care.

**Numerator Statement**: Primary measure: Women ages 15 through 44 who had a live birth and were provided a most (sterilization, intrauterine device, implant) or moderately (pill, patch, ring, injectable, diaphragm) effective method of contraception within 3 and 60 days of delivery.

Sub-measure: Women ages 15 through 44 who had a live birth and were provided a long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery.

**Denominator Statement**: Women ages 15 through 44 who had a live birth in a 12-month measurement year.

**Exclusions**: The following categories are excluded from the denominator: (1) deliveries that did not end in a live birth (i.e., miscarriage, ectopic, stillbirth or induced abortion); and (2) deliveries that occurred during the last two months of the measurement year.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Health Plan, Population: Regional

**Setting of Care:** 

Type of Measure: Intermediate Clinical Outcome

**Data Source**: Administrative claims

Measure Steward: US Office of Population Affairs

## STANDING COMMITTEE MEETING [05/02/2016]

#### 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Y-24; N-1; 1b. Performance Gap: H-21; M-6; L-0; I-0

# Rationale:

- This measure assesses a subpopulation of measures #2903 and #2904: it covers the population of women who have given birth in the last 60 days.
- As with measures #2903 and #2904, the Committee noted a large body of evidence demonstrated a
  relationship between contraception and reducing unintended pregnancy, which is no different for the
  postpartum period.
- The Committee highlighted that the provision of most or moderately effective methods does not address patient preference.
- One Committee member questioned if the measure is excluding mothers who gave birth less than 60 days
  from the end of the year. The developer explained that they excluded women who delivered with only 2
  months left in the measurement year as the developer wanted to make sure that providers had enough
  time after delivery to see the woman while ensuring that the measure aligns with ACOG's
  recommendations.
- The Committee requested that the developer clarify whether this is 2 different measures (within 3 days and within 60 days) or combined into one result. Conceptually, the developer explained, this is a stratification of a single measure into 2 different timeframes.

#### 2902 Contraceptive Care - Postpartum

- One Committee member requested that the developer harmonize this measure with the HEDIS measure of postpartum visits to widen the timeframe since it is hard to get the timely postpartum visit. The developer stated that they would consider this in the next iteration of the measure.
- The Committee noted that the performance gap is actually larger for the postpartum population than the general population and has more room for improvement.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-8; M-14; L-2; I-2b. Validity: M-17; L-6; I-1

# Rationale:

- The Committee agreed that the reliability and validity for this measure was similar to NQF #2903: Contraceptive Care Most & Moderately Effective Methods and #2904: Access to LARC. However, one Committee member asked that the developer clarify the reliability for this measure. The developer explained that for these measures in particular high numbers (several hundreds) were required to achieve a high reliability of 0.9, or 0.7 for a moderate level of reliability, which is acceptable or widely acceptable level of reliability.
- The Committee noted that, similar to the other measures, the same reasoning applies in terms of
  providers being responsible for their patients' decision-making regardless of the clinic process and
  counseling.

# 3. Feasibility: H-20; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

## Rationale:

• The Committee acknowledged the measure is feasible.

# 4. Usability and Use: H-15; M-12; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

• The Committee voiced no concerns regarding usability and use.

### **5. Related and Competing Measures**

• This measure directly relates to NQF #2903: Contraceptive Care – Most & Moderately Effective Methods and #2904: Access to LARC. These measures are from the same developer and harmonized.

# Standing Committee Recommendation for Endorsement: Y-24; N-3

## **Rationale**

• The Committee agreed that this measure meets all the NQF criteria for endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

# **Comments Received**

• This measure received 25 comments, all supporting the endorsement of the measure. A number of the comments highlighted the gap in contraceptive measures, noting there are no currently endorsed in the NQF portfolio. Several of the comments also noted some concern with the measure, including: the need to ensure women's choices are informed and respected and the need for the balancing measure of woman-reported experience of contraceptive care currently under development; these comments reiterated that the performance should not be 100%. In addition, commenters submitted requests to align the timing for postpartum coverage with other measures of postpartum care and for minor changes to the age range. One commenter stated this is not appropriate for a health plan level measure "given that health care decisions are best made between the providers and their patients"; another noted "that the contraceptive measures as currently specified are most appropriately reported at a population level and are not appropriate for "pay for performance" programs."

#### **Developer Responses**

# 2902 Contraceptive Care – Postpartum

- We appreciate the reviewer's support for the measure. The reviewer has raised an important issue, which OPA will be delighted to consider over the coming years as we gain more experience using the measure and consider whether any changes are needed when it goes before NQF for maintenance review in 3 years. Our intention is to form and convene an Expert Work Group in the interim period to review the use of the measure in various settings (Medicaid, Title X, other programs) and give us advice on what changes may be justified.
- The reviewer is correct in noting that Medicaid and other health plans that rely on claims-based reporting of the measure would not capture 'free contraception' -- however, this is likely to be a very small number of patients. Programs such as OPA's Title X program that do provide 'free' contraception can adapt the measure to their own data systems so that the 'free' methods are identified. We will consider submitting a Title X adaptation of the contraceptive measure to NQF when we submit for measure maintenance in 3 years.
- We appreciate the reviewer's support for this measure, and share their concern that contraceptive care
  be offered in a client-centered manner. Of note, existing research has shown that method effectiveness
  is important to many women and, as such, is one of many aspects of client centered care. For example, a
  recent study showed that nearly 90% of women reported that method effectiveness was an 'extremely
  important' characteristic (Jackson 2016).
- We do not fully understand the context of the comment that the measure is appropriate for population level but not health plan level, and welcome additional information from the reviewer. The primary purpose of the measures is to encourage removal of barriers to contraceptive access in the provider- and systems-level so that women are offered a wide range of methods in a client-centered manner, preferably on a same-day, onsite basis. It seems to us that these barriers could exist in a health plan, and therefore could be addressed at a health plan level as well as at the population level. We agree that benchmarking for this measure will require careful consideration so that comparisons across reporting units are done in a fair manner that does not put undue pressure on providers to 'coerce' women; we intend to convene an Expert Work Group in the intervening period before measure maintenance review, to help us consider the issue of benchmarking. If we are overlooking some other important aspect, we welcome additional information from the reviewer.
- We can see the potential benefit of aligning the postpartum contraceptive measure with the HEDIS
  postpartum measure, and will be delighted to consult with the Expert Work Group about this as
  preparation for submitting for measure maintenance in 3 years. However, the 3 day window is important
  to ensure women have access to contraception in the immediate postpartum period. This is a period in
  which there have been a number of barriers to providing the full range of contraceptive methods.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

#### **Submission | Specifications**

**Description**: The percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS)) or moderately effective (i.e., injectables, oral pills, patch, ring, or diaphragm) FDA-approved methods of contraception.

The proposed measure is an intermediate outcome measure because it represents a decision that is made at the end of a clinical encounter about the type of contraceptive method a woman will use, and because of the strong association between type of contraceptive method used and risk of unintended pregnancy.

**Numerator Statement**: Women aged 15-44 years of age at risk of unintended pregnancy who are provided a most (sterilization, intrauterine device, implant) or moderately (pill, patch, ring, injectable, diaphragm) effective method of contraception.

**Denominator Statement**: Women aged 15-44 years of age who are at risk of unintended pregnancy.

**Exclusions**: The following categories of women are excluded from the denominator: (1) those who are infecund for non-contraceptive reasons; (2) those who had a live birth in the last 2 months of the measurement year; or (3) those who were still pregnant or their pregnancy outcome was unknown at the end of the year.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Health Plan, Population: Regional, Population: State

**Setting of Care:** 

Type of Measure: Intermediate Clinical Outcome

**Data Source**: Administrative claims

Measure Steward: US Office of Population Affairs

# STANDING COMMITTEE MEETING [05/02/2016]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Y-24; N-1; 1b. Performance Gap: H-13; M-10; L-1; I-0

## Rationale:

- The Committee noted that the evidence demonstrated strong support for providing LARCs to demonstrate that clinics are providing greater access to a wide range of contraception options.
- The Committee highlighted that the evidence has shown that the type of counseling can be associated with the choice of method selected but did note that measuring the provision of most or moderately effective methods does not address patient preference. The Committee expressed concerns that this measure is assessing providers based on patients' clinical decision-making, which could lead to unintended consequences such as penalizing providers for patients' choices and preferences. Additionally, there might be resistance against contraception (e.g. Catholic systems or patient religious beliefs), which is not factored into the decision-making. The developer stated that the evidence is very strong that when counseling a woman about the range of options that most women will chose to use those most or moderately effective methods. In addition, the benchmark for this measure is 63%, so that patient preferences are respected.
- The developer also explained that this is a voluntary measure and it is possible that Catholic hospitals will not use this measure. However, 99% of women who identify a religious affiliation, including Catholic, have used birth control; 89% of Catholics report currently using contraception if they are at risk of unintended pregnancy; and 68% of Catholic women are using a highly effective method (i.e., sterilization, pill or other hormonal method, or IUD). Only 3% of Catholic women who are at risk of unintended pregnancy are using natural family planning.
- The Committee questioned why the focus is on actual provision of most or moderately effective methods and LARC versus offering other methods. The developer explained provision is the most reliable data available and can be captured in administrative data.
- The Committee asked the developer to explain the measure's postpartum exclusion, when those women are often the highest risk of repeat pregnancy. The developer explained that they developed NQF #2902:

Contraceptive Care - Postpartum specifically for that purpose. Additionally, ACOG's recommendation is to provide contraception at the six-week postpartum visit, so to be fair to providers, the developer excluded postpartum for this measure.

• The Committee highlighted that the percentage of women of reproductive age who are at risk of unintended pregnancy is 38 million and 51% of 6.7 million pregnancies each year are unintended. Additionally, there are gaps in unintended pregnancy especially for teens and unmarried women.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-8; M-14; L-2; I-0 2b. Validity: M-17; L-6; I-1

#### Rationale:

- One Committee member noted the significant barriers to contraceptive care for adolescents, specifically limited access to birth control for adolescents under the age of 18. Therefore, it is unfair to penalize providers based on these access limitations. The developer explained that adolescents under the age of 18 were included to align with the Medicaid Adult and Child Core Sets, so the measure could be stratified differently to capture this particular subpopulation.
- The Committee noted that the definition for "at risk" is unclear and it is missing from the measure specifications, specifically the denominator statements. The developer defined "at risk" as having ever had sex, fecund/able to become pregnant, not pregnant, and seeking pregnancy.
- The Committee questioned if condoms for women who want to prevent STIs, vasectomy as a form of birth control, oral contraceptives for menstrual cramps, young people and parents of young people with developmental disabilities using contraceptive method to control menstruation, and same-sex relationships where birth control is not an issue were subpopulations that were excluded from this measure. The developer explained that they are considering a hybrid measure that will be better able to address these issues, but this measure relies on claims data, so they were unable to address those issues in this measure. The developer noted that there were some limitations using this strictly claims-based measure.
- The developer reported that the measure was tested with approximately 800,000 clients in Planned Parenthood across 25 affiliates, 3 state Medicaid programs, and Title X programs.
- Systematic assessment of face validity by 9 experts agreed that this measure would provide an accurate reflection of quality.
- One Committee member asked the developer to explain how the measure handles situations in which patients have access to multiple healthcare systems and would be included in the denominator for both: which provider system or specialty care would be responsible for the prescribing of the contraceptive, and who would be penalized if the other prescribed first. The developer explained that the measure was tested at the Medicaid plan level looking at performance overall but the measure has not been tested at other levels of analysis (e.g., medical groups, clinicians). The Committee stressed that this measure needs to explicitly state that it is not appropriate for hospital level or provider level comparison.
- The Committee questioned whether this measure would capture over-the-counter oral contraceptives and pharmacy claims since states like California and Oregon are allowing this.
- One Committee member suggested that a pure provision measure would be better, especially since the
  measure is not accounting for women who were provided LARC in a previous measurement year or
  discontinuation of other methods. The developer stated that they would consider this in the next
  iteration of the measure.

# 3. Feasibility: H-20; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

• The data source is administrative claims data, so the Committee agreed that this measure was feasible.

#### 4. Usability and Use: H-10; M-12; L-3; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

- The Committee expressed concern about how consumers and patients might perceive this measure, particularly since over the past 5 years there have been significant examples of coercion in contraception counseling (e.g., forced sterilization in the prison system in California). One Committee member referenced a particular study that demonstrated that contraceptive counseling differed for women of different races and providers were biased towards providing LARC methods to African-American patients.
- The developer noted that they are funding a study to develop a patient-reported outcome measure
  looking at possible coercion as one dimension of the entire client experience related to contraceptive
  care. Another Committee member stated that it is not always coercion but limitation of contraceptive
  choices. For example, the provider offers 1 or 2 methods out of the whole range of options, rather than
  offering comprehensive contraceptive counseling that explains all of the options and allows patients to
  choose from a full range.
- Committee members noted that contraceptive counseling for women is probably one of the most
  intimate services that providers offer, and unfortunately, many providers are unskilled at doing that well
  regardless of the available guidelines.

## 5. Related and Competing Measures

• This measure directly relates to NQF #2902: Contraceptive Care – Postpartum and #2904: Access to LARC. These measures are from the same developer and harmonized.

# Standing Committee Recommendation for Endorsement: Y-20; N-5

#### Rationale

• The Committee agreed that this measure meets all the NQF criteria for endorsement.

# 6. Public and Member Comment: June 7 – July 6, 2016

## **Comments Received**

• This measure received 23 comments. As with measure #2902, the comments were all in favor, but highlighted the importance of ensuring that women are not coerced into using contraceptives and the need for a women-reported contraceptive access measure. In addition, commenters requested the exclusion of women who refuse contraceptives.

# **Developer Responses**

- Our intention is to form and convene an Expert Work Group in the interim period to review the use of the measure in various settings (Medicaid, Title X, other programs) and give us advice on what changes may be justified.
- We do not fully understand the context of the reviewer's comment that the measure should exclude members that refuse listed contraceptives, and welcome additional information from the reviewer. If the member refused the listed contraceptive because their preferred method(s) were not available, then we think this may be a barrier that could be reduced by use of the measure over time. Some clients will choose to not use any contraception at all and the measure is designed to respect their right to do so but those refusals would be captured by setting a benchmark below 100%. If there is some other nuance that we do not currently understand, we will be delighted to consider some other alternative.
- We share their concern that contraceptive care be offered in a client-centered manner. Of note, existing research has shown that method effectiveness is important to many women and, as such, is one of many aspects of client centered care. For example, a recent study showed that nearly 90% of women reported that method effectiveness was an 'extremely important' characteristic (Jackson 2016).
- OPA is fully committed to doing everything it can to ensure that the performance measures are used in a
  manner that supports the delivery of client-centered care. As the measure steward, we will take every
  opportunity (e.g., on the steward's measure webpage, in presentations, in publications) to explain how
  the measures are intended to be used. Key messages will include: no specific benchmark has been set

for the most/moderately effective method but OPA does not expect it to reach 100%; the interpretation of the LARC measure should be focused solely on identifying areas with extremely low levels of LARC provision and should not be used to encourage high rates of use; and it is not appropriate to use the LARC measure in a pay-for-performance context. We will also highlight the importance of following Federal recommendations, especially CDC-OPA's recommendations for how to provide quality family planning (QFP), for how to provide contraceptive care in a client-centered manner.

- We also agree with the reviewer's note of the need for a measure of client experience that will 'balance' the current measures focused on contraceptive provision. In fact, OPA recently awarded a 3-year cooperative agreement to the University of San Francisco to develop a patient-reported outcome performance measure (PRO-PM) for contraceptive care. The PRO-PM will focus on the client's experience with care and identify situations in which the woman's preference was not respected; it will serve to 'balance' the current measures that focus on what contraceptive methods were provided. A rigorous plan of testing and validation of the PRO-PM measure is planned, and we expect it will be ready for submission within 3 years. We look forward to learning more in the coming years about how to best use the two sets of measures in tandem so that women receive high quality, client-centered care.
- It seems to us that these barriers could exist in a health plan, and therefore could be addressed at a health plan level as well as at the population level. We agree that benchmarking for this measure should be voluntary; no specific benchmark has been set for the most/moderately effective method but OPA does not expect it to reach 100%; the interpretation of the LARC measure should be focused solely on identifying areas with extremely low levels of LARC provision and should not be used to encourage high rates of use; and it is not appropriate to use the LARC measure in a pay-for-performance context. We will be consulting with our Expert Work Group on this over the coming years, and welcome additional input.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

#### 2904 Contraceptive Care - Access to LARC

## **Submission | Specifications**

**Description**: Percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a long-acting reversible method of contraception (i.e., implants, intrauterine devices or systems (IUD/IUS).

It is an access measure because it is intended to identify situations in which women do not have access to the long-acting reversible methods of contraception (LARC), i.e., contraceptive implants and intrauterine devices.

**Numerator Statement**: Women aged 15-44 years of age at risk of unintended pregnancy who were provided a long-acting reversible method of contraception (LARC), i.e., intrauterine device or implant.

**Denominator Statement**: All women aged 15-44 years of age who are at risk of unintended pregnancy.

**Exclusions**: The following categories of women are excluded from the denominator: (1) those who are infecund for non-contraceptive reasons; (2) women who had a live birth in the last 2 months of the measurement year; or (3) women were still pregnant or their pregnancy outcome was unknown at the end of the year.

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Facility, Health Plan, Population: Regional, Population: State

**Setting of Care:** 

Type of Measure: Structure

**Data Source**: Administrative claims

Measure Steward: US Office of Population Affairs

# STANDING COMMITTEE MEETING [05/02/2016]

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Y-24; N-1; 1b. Performance Gap: H-18; M-7; L-0; I-0

# Rationale:

- This new measure is a subset of measure #2903, but has a different goal: to assess access to LARC methods of contraception. This measure focuses on the percentage of women at risk for unintended pregnancy that are provided a long-acting reversible method of contraception (i.e., implants, intrauterine devices or systems (IUD/IUS)).
- The Committee agreed that the overarching issues surrounding the evidence were addressed in the
  discussion of NQF #2903: Contraceptive Care Most & Moderately Effective Methods. However, the
  Committee requested that, in the future, the developer include more evidence for adolescent and around
  issues relating to side effects particular to LARCs, patients' fear of having IUD/IUS, and the noncontraceptive benefits of LARCs.
- The Committee agreed there were gaps in terms of unintended pregnancy rates among women of reproductive age and opportunities for improvement.

# 2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-8; M-1; L-0; I-0; 2b. Validity: M-17; L-6; I-1

#### Rationale:

- This measure is used to identify women who do not have access to LARCs.
- The Committee discussed the use of the population denominator versus the encounters as the denominator. The developer explained that the reason they chose population versus encounter was primarily because attribution could not be made to one encounter or one type of provider.
- The Committee noted that this measure provides a good metric for access, not necessarily quality, since there are many different factors that contribute to quality of care.

#### 2904 Contraceptive Care - Access to LARC

#### 3. Feasibility: H-20; M-5; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

• The Committee noted that the data required are routinely generated and/or used during care delivery, therefore data collection is feasible. This measure does not represent an undue burden to collect and can be implemented without much administrative burden.

## 4. Usability and Use: H-12; M-11; L-2; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale:

• The Committee noted the potential for coercive practices in which women are not offered a complete choice of methods and are pressured into using a LARC method. The developer stated that they do not think this will be a concern since the measure focus is on ensuring access to these methods by monitoring very low rates (well below the median) and the measure is not intended to be used for benchmarking.

# **5. Related and Competing Measures**

This measure directly relates to NQF #2902: Contraceptive Care – Postpartum and #2903: Contraceptive
Care – Most & Moderately Effective Methods. These measures are from the same developer and
harmonized.

# Standing Committee Recommendation for Endorsement: Y-20; N-5

#### Rationale

• The Committee agreed that this measure is useable as a marker of access to LARC methods.

## 6. Public and Member Comment: June 7 - July 6, 2016

#### **Comments Received**

- This measure received 24 comments. Almost all of the comments were supportive, and many raised similar concerns as with #2902 and #2903. Concerns were raised for this measure, including the fact that some insurers and health systems restrict access to LARC. One comment noted that IUDs and implants require different insertion skills and the measure should differentiate between them. Commenters both agreed and disagreed that this is a measure of access; one noted a concern that it may be misinterpreted and encourage providers to provide LARCs without appropriate counseling.
- One comment noted continuing concerns such a measure has the "potential to encourage coercion, which remains an ongoing reality for many, including low-income women, women of color, young women, immigrant women, LGBT people, and incarcerated women. We request that this measure be paired with a woman-reported "balancing measure" of experience of receiving contraceptive care. Such a measure can be expected to help identify and/or check inappropriate pressure from the health care system. We understand that OPA is developing such a measure and encourage its rapid completion and submission for endorsement. We recommend that proposed measure #2904 be held back until the measure of the experience of receiving contraceptive care is in place."

# **Developer Responses**

- For purposes of simplicity and because we did not want to imply one LARC method was preferred over the other, we combined both methods into a single LARC measure. However, there may be benefits to looking at the methods separately in the future as the measure is used more widely, to ensure that women are being given a choice of both IUDs and implants. We will consult with the Expert Work Group that will be considering the measure over the coming years, and welcome additional input.
- research has shown that method effectiveness is important to many women and, as such, is one of many aspects of client centered care. For example, a recent study showed that nearly 90% of women reported that method effectiveness was an 'extremely important' characteristic (Jackson 2016).
- OPA is fully committed to doing everything it can to ensure that the performance measures are used in a manner that supports the delivery of client-centered care. As the measure steward, we will take every

## 2904 Contraceptive Care - Access to LARC

opportunity (e.g., on the steward's measure webpage, in presentations, in publications) to explain how the measures are intended to be used. Key messages will include: no specific benchmark has been set for the most/moderately effective method but OPA does not expect it to reach 100%; the interpretation of the LARC measure should be focused solely on identifying areas with extremely low levels of LARC provision and should not be used to encourage high rates of use; and it is not appropriate to use the LARC measure in a pay-for-performance context. We will also highlight the importance of following Federal recommendations, especially CDC-OPA's recommendations for how to provide quality family planning (QFP), for how to provide contraceptive care in a client-centered manner.

- We also agree with the reviewer's note of the need for a measure of client experience that will 'balance' the current measures focused on contraceptive provision. In fact, OPA recently awarded a 3-year cooperative agreement to the University of San Francisco to develop a patient-reported outcome performance measure (PRO-PM) for contraceptive care. The PRO-PM will focus on the client's experience with care and identify situations in which the woman's preference was not respected; it will serve to 'balance' the current measures that focus on what contraceptive methods were provided. A rigorous plan of testing and validation of the PRO-PM measure is planned, and we expect it will be ready for submission within 3 years. We look forward to learning more in the coming years about how to best use the two sets of measures in tandem so that women receive high quality, client-centered care.
- It seems to us that these barriers could exist in a health plan, and therefore could be addressed at a health plan level as well as at the population level. We agree that benchmarking for this measure should be voluntary; no specific benchmark has been set for the most/moderately effective method but OPA does not expect it to reach 100%; the interpretation of the LARC measure should be focused solely on identifying areas with extremely low levels of LARC provision and should not be used to encourage high rates of use; and it is not appropriate to use the LARC measure in a pay-for-performance context. We will be consulting with our Expert Work Group on this over the coming years, and welcome additional input.

# **Committee Response**

- The Committee agreed that the measure developer is making concerted efforts to ensure that the
  measure not be used for coercion. They reiterated that the benchmark should absolutely not be 100%.
   The Committee strongly encouraged the developer to continue work on the patient-reported outcome
  measure of contraceptive care.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

# Measures Where Consensus Is Not Yet Reached

### 1517 Prenatal & Postpartum Care (PPC)

### **Submission | Specifications**

**Description**: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care:

Rate 1: Timeliness of Prenatal Care. The percentage of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization.

Rate 2: Postpartum Care. The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery.

**Numerator Statement**: This measure assesses whether pregnant women had timely prenatal and postpartum care visits. It has two rates, one assessing the timeliness of prenatal visits, and one assessing the timeliness of postpartum visits.

**Denominator Statement**: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year.

**Exclusions**: Non-live births

Adjustment/Stratification: No risk adjustment or risk stratification

**Level of Analysis:** Health Plan, Integrated Delivery System **Setting of Care:** Ambulatory Care: Clinician Office/Clinic

**Type of Measure**: Process

Data Source: Administrative claims, Electronic Clinical Data, Paper Medical Records

Measure Steward: National Committee for Quality Assurance

# **STANDING COMMITTEE MEETING [05/02/2016]**

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: H-0; M-3; L-2; I-21; Evidence Exception: Y-16; N-10

1b. Performance Gap: H-7; M-15; L-1; I-2;

# Rationale:

- The Committee that previously evaluated this maintenance measure during noted that this measure only assesses visits but not the content of those visits. The current Committee agreed that ACOG guidelines recommend a schedule of prenatal visits based primarily on expert opinion. The Committee acknowledged that data does show that patients who have no prenatal care have worse outcomes.
- The current Committee noted that there was no evidence for the timing of visits; however, the Committee agreed that empirical evidence is not needed to hold providers accountable for the measure. Therefore, the measure moved forward on Insufficient Evidence with Exception.
- The measure contains two rates: timeliness of prenatal care and postpartum care. The Committee noted the low adherence to the measure and missing care for women, which highlights that there is room for improvement:
  - o Timeliness of prenatal care: (2015) 85% Commercial plans; 82% Medicaid plans
  - o Postpartum care (2015): 73% Commercial plans; 62% Medicaid plans-

# 2. Scientific Acceptability of Measure Properties: <u>Consensus was not reached on the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: Previous Reliability Votes Accepted 2b. Validity: M-14; L-10; I-2

# Rationale:

• The measures has two rates: one for timeliness of prenatal care and one for postpartum care. The developer has changed the specifications since the last NQF endorsement review. The use of infant claims to identify deliveries was removed and the developer clarified the tests that must be included to meet

### 1517 Prenatal & Postpartum Care (PPC)

criteria for an obstetric panel in the medical record specification. These are as follows: hematocrit, differential WBC count, platelet count, hepatitis B surface antigen, rubella antibody, syphilis test, RBC antibody screen, Rh, and ABO blood typing.

- The Committee agreed the reliability of the measure was demonstrated, with the developer providing reliability testing at the measure score level. Reliability for commercial plans is 0.99 and for Medicaid plans 0.92-0.95.
- The Committee expressed major concerns about validity, specifically the limited number of codes and lack of information about the content of the visits.

## 3. Feasibility: H-4; M-14; L-7; I-1

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c\_.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

- The developer states that, "To allow for widespread reporting across health plans and healthcare practices, this measure is collected through multiple data sources (administrative data, electronic clinical data, paper records)."
- The Committee noted that collecting this measure using administrative claims was feasible and the burden of paper medical record review is considerable.

# 4. Usability and Use: H-2; M-14; L-8; I-2

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

#### Rationale

- The measure is actively used in programs for both health plan and state reporting.
- The Committee noted that early prenatal care is important for peri-partum depression screening, contraception, and life planning.
- The Committee agreed that this measure is problematic because it discourages earlier care and it is unclear whether quality is improving.

#### 5. Related and Competing Measures

• Related measure NQF #1391: Frequency of Ongoing Prenatal Care (FPC) has been withdrawn.

# Standing Committee Recommendation for Endorsement: Y-12; N-14 CONSENSUS NOT REACHED Rationale

Overall, the Committee did not reach consensus on this measure. Despite the various problems raised
with the measure, several Committee members were reluctant to remove endorsement until better
measures are available.

# 6. Public and Member Comment: June 7 – July 6, 2016

# **Comments Received**

- The measure received 10 comments; 6 were in support, 3 did not support, and 1 did not specify. Many of the comments noted that the quality of the visits is not being assessed and urged NQF to "raise the bar"; comments suggested issues that should be addressed within the visits. Of the comments in support of the measure, urging the Committee to recommend it, commenters noted the importance of the measure in ensuring access to both prenatal and postpartum care, and "it doesn't matter how high the quality of care is if women do not access care early enough to benefit from it". Other comments suggested that holding health systems at least partially responsible for access to prenatal care is crucial, and that to not do so "contradicts national efforts to reduce maternal morbidity and mortality." Noting the lack of measures in this area, commenters urged the Committee to recommend this measure in the interim while improved measures are developed.
- Comments urging the Committee not to recommend the measure noted that the schedule of both prenatal and postpartum visits is based on expert opinion, not evidence, and the content and quality are not evaluated. Several commenters suggested new timeframes, and noted the need for earlier postpartum visits for breastfeeding support or caesarean section wound care as well as the difficulty of

## 1517 Prenatal & Postpartum Care (PPC)

gathering this data via billing codes.

• Commenters also recommended splitting the measure into two separate measures, one on prenatal care and one on postpartum care.

#### **Developer Responses**

- We agree that measures addressing the content of perinatal care are needed. We hope to develop better perinatal measures in the future in order to complement this current access/availability of care measure, which we believe is still useful in the meantime.
- There is variation in recommendations for timing of postpartum visits. Organizations have typically recommended a visit 4-6 weeks post-delivery unless there are specific complications or risk factors. Our advisory panels recommended a 3-8-week timeframe as appropriate for capturing timely postpartum care without inadvertently counting visits for post C-section wound checks, which they concluded did not meet the intent of the measure. ACOG notes that a comprehensive postpartum visit should include a full assessment of physical, social and psychological well-being, with guidance given on issues such as contraception and postpartum concerns.
- The measure is currently reported as two rates: timeliness of prenatal care and postpartum care. Results for each rate can be viewed separately in order to understand a plan's performance on each.

# **Committee Response**

- The Committee continues to have similar concerns as were discussed at the in-person meeting, including the timeframe, the fact the measure is based on expert consensus, not empirical evidence, and the emphasis on quantity, not content of visits. This was contrasted with the lack of measures in this area, the large gap in performance, the unlikelihood that RCTs will be conducted on this topic, and the fact that if patients are not receiving care, it is definitely poor quality.
- The Committee again requested splitting the measure into 2 separate measures. The prenatal care measure was not a concern.
- The Committee found the time range specified in the postpartum measure to be problematic as patients receiving postpartum care a few days on either side of the window are not receiving poor care. A two-week postpartum visit (14 days) also may be appropriate for some patients.
- Committee members report that improving the results for the postpartum measures is difficult even in the face of payment penalties.
- Despite extensive discussions, the Committee was unable to achieve consensus on their re-votes on either validity or an overall recommendation:
  - Validity: Mod 11 (52%); Low 7; Insufficient 3
  - Overall: Yes 10 (48%) No 12 (52%)
- measure will move forward as "consensus not reached" to NQF Member Vote. CSAC will make the final recommendation for or against endorsement.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

# Measures Not Recommended

# 1391 Frequency of Ongoing Prenatal Care (FPC)

#### **Submission**

**Description**: The percentage of Medicaid deliveries that had the following number of expected prenatal visits:

- less than 21 percent of expected visits.
- 21 percent-40 percent of expected visits.
- 41 percent-60 percent of expected visits.
- 61 percent-80 percent of expected visits.
- greater than or equal to 81 percent of expected visits.

Numerator Statement: Women who had the appropriate number of expected prenatal visits

**Denominator Statement**: The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year.

**Exclusions**: Exclude non-live births

Adjustment/Stratification: No risk adjustment or risk stratification

**Level of Analysis:** Health Plan, Integrated Delivery System **Setting of Care:** Ambulatory Care: Clinician Office/Clinic

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Paper Medical Records

Measure Steward: National Committee for Quality Assurance

#### STANDING COMMITTEE MEETING [05/02/2016]

### 1. Importance to Measure and Report: The measure does not meet the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: H-1; M-1; L-9; I-15; 1b. Performance Gap: H-0; M-0; L-0; I-0

# Rationale:

- The Committee that previously evaluated this maintenance measure noted that this measure only
  assesses the number of visits but not the content of those visits. The Committee agreed that ACOG
  guidelines recommend a schedule of prenatal visits that are based primarily on expert consensus. The
  prior Committee questioned the relationship of the visit groups defined in this measure to patient
  outcomes. The current Committee acknowledged that data does show that patients who have no
  prenatal care have worse outcomes.
- The current Committee noted the deficiency of the evidence, specifically the frequency of visits being based on expert consensus and not empiric evidence. The Committee noted that there is no empiric evidence in terms of the visit schedule or the number of visits being associated with improvement in outcomes for mothers and babies.
- This measure is considered a proxy for access to care; however, the measure does not assess the capacity of a plan to provide prenatal care. The measure reflects the challenges women face in accessing care, such as taking time off work, transportation, and childcare.
- The Committee noted that frequency does not equal quality and that this measure inhibits innovative strategies and new models of care.
- The measure did not pass the Evidence criterion.

# 2. Scientific Acceptability of Measure Properties:

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-0; M-0; L-0; I-0 2b. Validity: H-0; M-0; L-0; I-0

Rationale:

•

# 1391 Frequency of Ongoing Prenatal Care (FPC)

## 3. Feasibility: H-0; M-0; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

•

# 4. Usability and Use: H-0; M-0; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

•

# **5. Related and Competing Measures**

• This measure directly competes with [NQF # and Title] [Description]. [Summarize the related/competing measure issue here, and the disposition of it]

OR

No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: Y-0; N-0 DID NOT PASS IMPORTANCE Rationale

• The Committee did not recommend this measure because the number/frequency of visits was not demonstrated to equal quality or improve outcomes.

#### 6. Public and Member Comment: June 7 – July 6, 2016

#### **Comments Received**

• This measure received 3 comments agreeing with the Committee's concerns and their decision not to recommend the measure for endorsement. The measure did not pass Evidence (H-1; M-1; L-9; I-15). Two commenters disagreed with the Committee's recommendation. One comment agreed there are shortcomings with the measure, but noted that it is considered a basic measure of appropriate maternity care and there are no alternatives to replace it; this commenter urged the development of an improved measure as soon as possible. The final commenter raised concerns stating that the measure has been the basis for successful public health programs since the 1930s, and noting that gaps in care remain. In addition, the commenter stated, the loss of the measure could "lead to further disregard of PNC utilization in US healthcare plans, diminished primary and preventive care for women during pregnancy, and exacerbate reproductive health and health care inequity in the US." This commenter also suggested simplifications to improve the measure.

#### **Developer Response**

 NCQA has withdrawn the Frequency of Prenatal Care (#1391) measure from consideration for reendorsement.

# **NQF** Response

This measure has been withdrawn from consideration. Endorsement will be removed.

# 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

# 8. Board of Directors Vote: Y-X; N-X

# 9. Appeals

# 2892 Birthrisk Cesarean Birth Measure

# **Submission**

**Description**: This is a measure of the effect that obstetrical care provider's labor management strategies have on their laboring patient's risk for cesarean birth. The target population is limited to women who attempt labor with

#### 2892 Birthrisk Cesarean Birth Measure

a singleton vertex pregnancy without a history of a prior cesarean birth and give birth between 37 and 42 weeks of gestation.

Numerator Statement: Number of cesarean births.

**Denominator Statement**: Women without a history of a prior cesarean birth who attempted labor and gave birth to a single baby in vertex presentation between 37 and 42 weeks of gestation.

**Exclusions**: The denominator excludes women with any of the following:

- 1. Gestational age at birth of less than 37 weeks or greater than 42 weeks.
- 2. History of a prior cesarean birth.
- 3. Multiple gestation.
- 4. Not in vertex presentation.
- 5. Did not attempt to have a vaginal birth by attempting labor.

Adjustment/Stratification: Cohort comparison Level of Analysis: Facility, Clinician: Individual Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Other

Measure Steward: Birthrisk.com, LLC.

# **STANDING COMMITTEE MEETING [May/03/2016]**

# 1. Importance to Measure and Report: The measure does not meet the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Y-26; N-1; 1b. Performance Gap: H-2; M-7; L-13; I-5

# Rationale:

- This new measure uses a novel approach to measuring Cesarean birth rates (as opposed to the currently endorsed measure, #0470) as this measure includes all mothers undergoing labor and is not limited to first time mothers.
- The Committee had no reference data to evaluate the results calculated by the developer, which was completed using birth certificate data from New York State in 2005-2007. This hospital and clinician-level measure also uses a fee-based, proprietary method of risk adjustment using cohort comparisons.
- The data presented was from 2005-2007 now 10 years old.
- The developer notes that efforts to have the method published have not been successful.
- The measure did not pass Performance Gap.

# 2. Scientific Acceptability of Measure Properties:

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-0; M-0; L-0; I-0 2b. Validity: H-0; M-0; L-0; I-0

# Rationale:

•

# 3. Feasibility: H-0; M-0; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

•

# 4. Usability and Use: H-0; M-0; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

## Rationale:

•

#### 2892 Birthrisk Cesarean Birth Measure

#### 5. Related and Competing Measures

•

# Standing Committee Recommendation for Endorsement: DID NOT PASS IMPORTANCE

#### Rationale

 The Committee did not recommend this proprietary measure in which the only data presented was a decade old.

# 6. Public and Member Comment: June 7 – July 6, 2016

#### **Comments Received**

- This measure received 2 comments supporting the Committee's recommendation not to endorse.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

# **2893 Neonatal Intensive Care All-Condition Readmissions**

# Submission |

**Description**: The NICU Readmissions metric assess the hospital- or state-level readmission rate at 30 days after a stay in the Neonatal Intensive Care Unit.

**Numerator Statement**: Number of infants with a gestational age between 23-34 weeks who were readmitted to the hospital within 30 days of discharge. These time periods are assessed cumulatively, such that readmissions occurring within prior time periods are included. Reliability is strongest if each health care unit has at least 50 discharges per time unit studied.

**Denominator Statement**: Number of newborns with a gestational age between 23-34 weeks discharged from the NICU, based on gestational age field contained in the birth certificate record (best obstetrical estimate).

**Exclusions**: Infants with a specified congenital anomaly are excluded from the target population.

Infants with a missing gestational age are excluded from the primary analysis. Information about multiple imputation methods to allow for their inclusion are presented in the testing attachment, section 2b7.

Infants who expired during the neonatal intensive care period are not eligible for a hospital readmission and excluded.

The smallest level of measurement (i.e. hospital, state, etc.) must have a minimum of 50 patients eligible for readmission in a single calendar year.

Adjustment/Stratification: Statistical risk model Level of Analysis: Facility, Population: State Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims, Electronic Clinical Data: Electronic Health Record, Other

Measure Steward: The Children's Hospital of Philadelphia

# **STANDING COMMITTEE MEETING [05/03/2016]**

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Y-26; N-1; 1b. Performance Gap: H-14; M-11; L-1; I-0

# Rationale:

- The Committee agreed that transitions of care are important; that discharge planning and outpatient care coordination can influence the outcome; and there is significant variation in care.
- There are racial/ethnic disparities, particularly for African Americans.

#### 2893 Neonatal Intensive Care All-Condition Readmissions

# 2. Scientific Acceptability of Measure Properties: The measure does not meet the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-1; M-7; L-17; I-2 2b. Validity: H-0; M-0; L-0; I-0

# Rationale:

- The Committee noted that there are numerous readmission measures for adults and children, however, newborns may be cared for in 2 types of NICUs: a maternity/birth hospital that does not readmit neonates and a general acute care facility that does readmit neonates (though the infants are typically readmitted to the general pediatrics floor rather than the NICU).
- This measure is specified for facilities/hospitals, and not all of these may be able to track readmissions to other facilities. Though health information exchanges may improve the ability to capture and share data in the future, the Committee noted that insurers, managed care organizations and Medicaid may be better able to track readmissions across facilities than the facilities themselves.
- The measure relies on hospital data linked to vital statistics, which may not be available in all locations.
   The Committee was concerned that the measure does not account for planned readmissions or planned transfers and does not differentiate between a hospitalization and an observation stay since both are included as readmissions.
- The developer indicated that "accurate implementation of this metric will require new data collection linkage with birth certificates or more widespread and standardized use of the EHR for publicly reported measures."
- The measure did not pass Reliability.

# 3. Feasibility: H-0; M-0; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

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# 4. Usability and Use: H-0; M-0; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

•

# **5. Related and Competing Measures**

No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: DID NOT PASS RELIABILITY

# **Rationale**

• The Committee did not recommend the measure because of the questions around reliability of data capture and recommends further development of this important measure. The Committee also suggested including larger babies, that may not have been in the NICU, but who experience a significant number of readmissions.

# 6. Public and Member Comment: June 7 - July 6, 2016

• This measure received one comment supporting the measure, but it did not provide any further data in support of the measure.

# 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

# 8. Board of Directors Vote: Y-X; N-X

# 9. Appeals

2895 Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure

# Submission |

**Description**: This measure describes in terms of admission temperature the status of live-born neonates less than 2,500 grams that are admitted to a Level 2 or higher nursery.

This measure reports on the temperature at admission. Temperatures are reported both in categorical terms and as a distribution. The distribution should be presented as a cumulative incidence curve with a chart to present key moments in the distribution. The categorization data may be presented in chart or graphical form, such as a pie chart, with parents. Each admission is categorized into one of five strata on the basis of their admission temperature. The strata, which were defined by our expert panel, are cold (<34.5), very cool (34.51-35.50), cool (35.51-36.50), about right (36.51-37.50) and overly warm (>37.5). All temperatures are analyzed using degrees Celsius and reported to one decimal place. The FIRST temperature taken in the nursery is to be recorded and

To avoid the potential for gaming the measure by delaying a recorded temperature after arrival, the results are stratified in three ways:

- Main Stratum: Time between arrival at Level 2 or higher nursery is between 0 and 15 minutes.
- Delayed stratum: Time between arrival at Level 2 or higher nursery is more than 15 minutes.
- Other: Inadequate documentation to determine timing of temperature

**Numerator Statement**: The metric of interest is the temperature upon arrival to the Level 2 or higher nursery that is being assessed. This measure does not have the form of numerator and denominator. It is a distribution. We ask for reporting of the distribution in terms of five categories across the distribution, in terms of key moments in the distribution, and as a graphical presentation of the distribution. This is an information rich measure. Accountability entities may choose to use any of various components for their emphasis (alone or in combination), including percent "about right," mean or median temperatures, or value of the 10th or 25th percentiles, and the inter-percentile range.

There is an eligible population of newborns, which could be considered the denominator.

In lieu of a numerator, this measure reports the distribution of temperatures, using both numbers and a graph. In order to allow for reporting of key factors of interest to the accountability entity, this measure is specified to report that distribution in a variety of ways. This measure offers users (the accountability entity) the option to focus on one or more key substantive aspects of thermal outcomes in the defined population.

#### Data Elements:

- -- Temperature to first decimal place
- -- Units of temperature (Celsius, Fahrenheit). Those measured in Fahrenheit should be converted to Celsius. Celsius=(Fahrenheit less 32) times 5 divided by 9.
- -- Time that temperature was measured
- -- Time of arrival to the nursery (not time that admission was done)

State and County of residence OR zip code of mother

-- Optional: Method of temperature measurement (axillary, rectal, skin, tympanic)

**Denominator Statement**: All newborn infants born in a medical facility with birthweights less than 2,500 grams and admitted to a level 2 or higher nursery within 24 hours of life, other than those excluded.

**Exclusions**: Neonates with anencephaly, who receive only comfort care in the Level 2 or higher nursery, or those who die or are placed intentionally on a pre-existing hypothermia protocol prior to the 15 minute after arrival specification time.

Adjustment/Stratification: Stratification by risk category/subgroup

Level of Analysis: Population: Community, Population: County or City, Facility, Health Plan, Integrated Delivery

System, Population: Regional, Population: State

# 2895 Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure

Setting of Care: Hospital/Acute Care Facility, Other

Type of Measure: Outcome

Data Source: Administrative claims, Electronic Clinical Data: Electronic Health Record, Other, Paper Medical

Records

Measure Steward: University Hospitals Cleveland Medical Center

# **STANDING COMMITTEE MEETING [05/02/2016]**

# 1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: Y-25; N-0; 1b. Performance Gap: H-14; M-10; L-2; I-0

#### Rationale:

- This new, intermediate outcome measure for newborn temperature management reports the distribution of temperatures on arrival to the NICU for babies weighing less than 2,500 grams.
- Strong evidence has shown that low birthweight babies who are allowed to lose body heat are at increased risk for morbidity and mortality.
- Data from the test population in New York provided by the developer demonstrated variation in performance.

# 2. Scientific Acceptability of Measure Properties: <u>The measure did not reach consensus for the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: M-13; L-8; I-4 2b. Validity: H-3; M-8; L-4; I-10

# Rationale:

- The Committee did not reach consensus on the reliability and validity of the measure due to multiple concerns:
  - o the temperature strata were determined by expert consensus rather than empirical evidence;
  - o difficulty in interpreting the measure results that are intended to be displayed as a distribution in a table and cumulative distribution curve rather than a single numerical result;
  - o the validity testing was performed on a variant of the measure; and
  - o confusion as to how to interpret the measure results for accountability purposes.

# 3. Feasibility: H-3; M-15; L-5; I-2

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

#### Rationale:

• The Committee agreed that temperature data are readily collected in the medical record, however, extracting that data would be challenging for this measure. The developer reported that they are creating a web portal to submit data.

# 4. Usability and Use: H-2; M-13; L-9; I-1

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

• Committee members were not clear as to how a distribution result recommended by the developer could be used for making comparisons and accountability.

# 5. Related and Competing Measures

• No related or competing measures noted.

# 2895 Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure

# Standing Committee Recommendation for Endorsement: Y-7; N-18

# Rationale

• The Committee agreed that neonatal temperature management is an important topic but did not recommend this measure, as constructed, for endorsement.

# 6. Public and Member Comment: June 7 - July 6, 2016

- This measure received 1 comment supporting the Committee's decision not to recommend the measure.
- 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X
- 8. Board of Directors Vote: Y-X; N-X
- 9. Appeals

# 2896 Structural Attributes of Facility in which High Risk Women Deliver Newborns: A PQMP Measure

#### Submission |

**Description**: This measure characterizes the facility that is the site of delivery of newborn infants born to high risk women by four key structural characteristics. These four characteristics were identified as critical structures by a national expert panel who served CAPQuaM's 360 degree process for measure development. This work was undertaken in the context of developing innovative measures of the availability of High Risk Obstetrical (HROB) care as assigned by AHRQ and CMS.

The four key structures are:

- (a) Level 3 or higher NICU services on campus. Level 3 NICU is defined as meeting either the American Academy of Pediatrics (AAP) criteria or a locally used set of explicit criteria recognized by that state's Department of Health.
- (b) 24/7 on-site blood banking services/transfusion services that are always available for obstetrical patients. By 24/7 blood banking/transfusion services we mean that the following are always available to obstetrical patients: testing of blood group and Rh Type; cross matching; antibody testing; transfusion with on-site and available blood, either ABO specified or O-Rh-negative; transfusion with fresh frozen plasma; and transfusion with cryoprecipitate.
- (c) 24/7 in house physician dedicated to labor and delivery who is capable of safely managing labor and delivery, and of performing a cesarean section, including an emergent cesarean section.
- (d) 24/7 in house physician coverage dedicated to the obstetrical service by an anesthesiologist who is qualified to provide obstetrical anesthesia.

**Numerator Statement**: Number of eligible newborn deliveries that occur in facilities with:

- (a) Level 3 or higher NICU services on campus. Level 3 NICU is defined as meeting either the American Academy of Pediatrics (AAP) criteria or a locally used set of explicit criteria recognized by that state's Department of Health.
- (b) 24/7 on-site blood banking services/transfusion services that are always available for obstetrical patients. By 24/7 blood banking/transfusion services we mean that the following are always available to obstetrical patients: testing of blood group and Rh Type; cross matching; antibody testing; transfusion with on-site and available blood, either ABO specified or O-Rh-negative; transfusion with fresh frozen plasma; and transfusion with cryoprecipitate.
- (c) 24/7 in house physician dedicated to labor and delivery who is capable of safely managing labor and delivery, and of performing a cesarean section, including an emergent cesarean section.
- (d) 24/7 in house physician coverage dedicated to the obstetrical service by an anesthesiologist who is qualified to provide obstetrical anesthesia.

# 2896 Structural Attributes of Facility in which High Risk Women Deliver Newborns: A PQMP Measure

Measure: Meets all four criteria.

Stratifications:

a. Meets none

b. Includes a

c. Includes b

d. includes c

e. includes d

**Numerator Elements:** 

Number of eligible deliveries

Maternal and infant ICD-9 codes

Response to survey question identified on technical specifications or Other valid self-report of structural characteristics as specified

No Numerator Exclusions

**Denominator Statement**: Overall number of newborn deliveries in health care facilities that are born to women whose pregnancy meets the criteria for high risk. While qualification for the denominator requires that the birth occur in a health care facility this measure is not specified to assess performance of individual facilities.

Exclusions: None

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Population: Community, Population: County or City, Health Plan, Integrated Delivery System,

Population: National, Population: Regional, Population: State

Setting of Care: Hospital/Acute Care Facility, Other

Type of Measure: Composite

**Data Source**: Administrative claims, Healthcare Provider Survey **Measure Steward**: University Hospitals Cleveland Medical Center

# **STANDING COMMITTEE MEETING [05/02/2016]**

# 1. Importance to Measure and Report: The measure did not meet the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: H-1; M-6; L-3; I-15; 1b. Performance Gap: H-0; M-0; L-0; I-0; ; Evidence Exception: Y-11; N-14 Rationale:

- This new composite measure includes 4 structural components of care delivery for high-risk mothers.
- The Committee did not agree that this is a measure of quality or accountability for providers. The Committee noted that the information may be important as a designation of care provision.
- The evidence provided for the 4 components is expert opinion, not empirical evidence.
- The developers stated that this is a "population measure de-linked from individual patient care" and "the measure does not make a distinction between good care and bad care."
- The Committee noted that the measure includes mothers with birth complications that are mostly unpredictable and care cannot be redirected to a different facility after birth.
- No measure results for any plans/systems were presented by the developer. The Committee agreed
  that directing high-risk mothers and high-risk babies to the facilities most capable of caring for them
  may impact outcomes but this measure needs further development to become an accountability
  measure.

# 2. Scientific Acceptability of Measure Properties:

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: H-0; M-0; L-0; I-0 2b. Validity: H-0; M-0; L-0; I-0

Rationale:

•

# 2896 Structural Attributes of Facility in which High Risk Women Deliver Newborns: A PQMP Measure

# 3. Feasibility: H-0; M-0; L-0; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/unintended consequences identified 3d. Data collection strategy can be implemented)

# Rationale:

•

# 4. Usability and Use: H-0; M-0; L-0; I-0

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

# Rationale:

•

# **5. Related and Competing Measures**

No related or competing measures noted.

# Standing Committee Recommendation for Endorsement: DID NOT PASS IMPORTANCE

# **Rationale**

• The Committee agreed that directing high-risk mothers and high-risk babies to the facilities most capable of caring for them may impact outcomes, but this measure needs further development to become an accountability measure.

# 6. Public and Member Comment: June 7 - July 6, 2016

 This measure received 1 comment supporting the Committee's decision not to recommend the measure.

# 7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

8. Board of Directors Vote: Y-X; N-X

# 9. Appeals

# **Appendix B: NQF Perinatal and Reproductive Health Portfolio**

Newly submitted measures are shaded. Starred measures (\*) were not submitted for maintenance and will lose endorsement at the end of this project. The double starred measure (\*\*) was withdrawn and will lose endorsement at the end of the project.

# Reproductive Health

Measure Number	Measure Title	Measure Steward
0033	Chlamydia Screening in Women (CHL)	National Committee for Quality Assurance
0567*	Appropriate Work Up Prior to Endometrial Ablation Procedure	Health Benchmarks-IMS Health
1395*	Chlamydia Screening and Follow Up	National Committee for Quality Assurance
2902	Contraceptive Care - Postpartum	US Office of Population Affairs
2903	Contraceptive Care – Most & Moderately Effective Methods	US Office of Population Affairs
2904	Contraceptive Care - Access to LARC	US Office of Population Affairs

# Pregnancy and Prenatal Care

Measure Number	Measure Title	Measure Steward
0651*	Ultrasound determination of pregnancy location	American College of Emergency
	for pregnant patients with abdominal pain	Physicians
1391 <u>**</u>	Frequency of Ongoing Prenatal Care (FPC)	National Committee for Quality
		Assurance
1517	Prenatal & Postpartum Care (PPC)	National Committee for Quality
		Assurance

# **Labor and Delivery**

Measure Number	Measure Title	Measure Steward
0469	PC-01 Elective Delivery	The Joint Commission
0469:2829	PC-01 Elective Delivery [eMeasure]	The Joint Commission
0470	Incidence of Episiotomy	National Perinatal Information Center
0471	PC-02 Cesarean Birth	The Joint Commission
2892	Birthrisk Cesarean Birth Measure	Birthrisk, LLC
1746*	Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)	Massachusetts General Hospital
0472*	Appropriate Prophylactic Antibiotic Received	Massachusetts General

Measure Number	Measure Title	Measure Steward
	Within One Hour Prior to Surgical Incision –	Hospital/Partners Health Care
	Cesarean section	System
0473	Appropriate DVT prophylaxis in women undergoing cesarean delivery	Hospital Corporation of America
0477*	Under 1500g infant Not Delivered at Appropriate	California Maternal Quality Care
	Level of Care	Collaborative

# Labor and Delivery: High-risk Pregnancy

Measure Number	Measure Title	Measure Steward
0476	PC-03 Antenatal Steroids	The Joint Commission
2896	Structural Attributes of Facility in which High Risk	Collaboration for Pediatric Quality
	Women Deliver Newborns: A PQMP Measure	Measures (CAPQuaM)

# Newborn

Measure Number	Measure Title	Measure Steward
0716	Unexpected Complications in Term Newborns	California Maternal Quality Care Collaborative
0475	Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge	Centers for Disease Control and Prevention

# Newborn: Premature/ Low birthweight

Measure Number	Measure Title	Measure Steward
1382	Percentage of low birthweight births	Centers for Disease Control and Prevention
0483	Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity	Vermont Oxford Network
0304	Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-adjusted)	Vermont Oxford Network
1731	PC-04 Health Care-Associated Bloodstream Infections in Newborns	The Joint Commission
0478	Neonatal Blood Stream Infection Rate (NQI #3)	Agency for Healthcare Research and Quality
2895	Thermal Condition of Low Birthweight Neonates Admitted to Level 2 or Higher Nurseries in the First 24 Hours of Life: A PQMP Measure	Collaboration for Pediatric Quality Measures (CAPQuaM)
2983	Neonatal Intensive Care All-Condition	The Children's Hospital of

Measure Number	Measure Title	Measure Steward
	Readmissions	Philadelphia

# Postpartum

Measure Number	Measure Title	Measure Steward
0480	PC-05 Exclusive Breast Milk Feeding	The Joint Commission
0480:2830	PC-05 Exclusive Breast Milk Feeding [eMeasure]	The Joint Commission
1517	Prenatal & Postpartum Care (PPC)	National Committee for Quality
		Assurance

# Appendix C: Perinatal and Reproductive Health Portfolio—Use in Federal Programs

NQF #	Title	Federal Programs: Finalized as of May 11, 2016
0033	Chlamydia Screening for Women	Children's Health Insurance Program Reauthorization Act Quality Reporting; Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults; Meaningful Use (EHR Incentive Program) - Eligible Professionals;#Physician Feedback; Physician Quality Reporting System (PQRS); Value-Based Payment Modifier Program
0469	PC-01 Elective Delivery	Hospital Inpatient Quality Reporting; Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults; Meaningful Use (EHR Incentive Program) - Hospitals, CAHs
0471	PC-02 Cesarean Section	Children's Health Insurance Program Reauthorization Act Quality Reporting
0476	PC-03 Antenatal Steroids	Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults
0480	PC-05 Exclusive Breast Milk Feeding and the subset measure PC- 05a Exclusive Breast Milk Feeding Considering Mother's Choice	Hospital Inpatient Quality Reporting; Meaningful Use (EHR Incentive Program) - Hospitals, CAHs
0651	Ultrasound determination of pregnancy location for pregnant patients with abdominal pain	Physician Feedback;#Physician Quality Reporting System (PQRS); Value-Based Payment Modifier Program
0716	Healthy Term Newborn	Hospital Inpatient Quality Reporting; Meaningful Use (EHR Incentive Program) - Hospitals, CAHs
1382	Percentage of low birthweight births	Children's Health Insurance Program Reauthorization Act Quality Reporting
1391	Frequency of Ongoing Prenatal Care (FPC)	Children's Health Insurance Program Reauthorization Act Quality Reporting
1517	Prenatal & Postpartum Care (PPC)	Children's Health Insurance Program Reauthorization Act Quality Reporting; Initial Core Set of Health Care Quality Measures for Medicaid-Eligible Adults

# **Appendix D: Project Standing Committee and NQF Staff**

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# **Appendix E: Measure Specifications**

	0022 Chlamadia Careening in Managa (CIII)	
	0033 Chlamydia Screening in Women (CHL)	
Status	Submitted	
Steward	National Committee for Quality Assurance	
Description	The percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.	
Туре	Process	
Data Source	Administrative claims, Electronic Clinical Data, Electronic Clinical Data: Imaging/Diagnostic Study, Electronic Clinical Data: Laboratory, Electronic Clinical Data: Pharmacy This measure is based on administrative claims collected in the course of providing care to health plan members. NCQA collects the Healthcare Effectiveness Data and Information Set (HEDIS) data for this measure directly from Health Management Organizations and Preferred Provider Organizations via NCQA's online data submission system. No data collection instrument provided Attachment 0033_CHL_Value_Sets.xlsx	
Level	Health Plan, Integrated Delivery System	
Setting	Ambulatory Care : Clinician Office/Clinic	
Numerator Statement	Females who were tested for chlamydia during the measurement year.	
Numerator Details	Females who had at least one test for chlamydia (see attached: Chlamydia Tests Value Set) during the measurement year.	
Denominator Statement	Females 16-24 years who had a claim or encounter indicating sexual activity.	
Denominator Details	All female patients 16-24 years as of December 31 of the measurement year and who were identified as sexually active during the measurement year.  Sexually active: Two methods are used to identify sexually active women: pharmacy data (see CHL-A: Prescriptions to Identify Contraceptives) and claim/encounter data (see attached: Pregnancy Value Set, Sexual Activity Value Set, and Pregnancy Tests Value Set). Both methods are used to identify the eligible population; however, a patient only needs to be identified in one method to be eligible for the measure.  Table CHL-A: Prescriptions to Identify ContraceptivesContraceptives: Desogestrel-ethinyl estradiol; Dienogest-estradiol multiphasic; Drospirenone-ethinyl estradiol; Drospirenone-ethinyl estradiol-levomefolate biphasic; Ethinyl estradiol-ethynodiol; Ethinyl estradiol-etonogestrel; Ethinyl estradiol-levonorgestrel; Ethinyl estradiol-norelgestromin; Ethinyl estradiol-norethindrone; Ethinyl estradiol-norgestimate; Ethinyl estradiol-norgestrel; Etonogestrel; Levonorgestrel; Medroxyprogesterone; Mestranol-norethindrone; NorethindroneDiaphragmSpermicide: Nonxynol 9	
Exclusions	Females who received a pregnancy test to determine contraindications for medication (isotretinoin) or x-ray.	
Exclusion details	Exclude members from the denominator who were identified as sexually active based on a pregnancy test alone (see attached: Pregnancy Tests Value Set) AND who meet	

	0033 Chlamydia Screening in Women (CHL)
	either of the following:
	1) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (see Table CHL-E: Medications to Identify Exclusions) on the date of the pregnancy test or the 6 days after the pregnancy test.
	2) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a x-ray (see attached: Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.
	Table CHL-E: Medications to Identify Exclusions
	Retinoid: Isotretinoin
Risk	No risk adjustment or risk stratification
Adjustment	NA
Stratification	The measure includes two age stratifications and a total rate:
	1) 16-20 years.
	2) 21-24 years.
	3) Total
Type Score	Rate/proportion better quality = higher score
Algorithm	Refer to items S.9 (Denominator details) and S.2b (Data Dictionary) for tables.
	Step 1 Determine the eligible population. To do so, identify all female patients in the specified age range who had a claim/encounter indicating sexual activity (Pregnancy Value Set, Sexual Activity Value Set, Pregnancy Tests Value Set) and/or were dispensed prescription contraceptives (Table CHL-A) during the measurement year.
	Step 2 Exclude patients who qualified for the eligible population based on a pregnancy test (Pregnancy Tests Value Set) alone AND who meet either of the following: (1) A pregnancy test (Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (Table CHL-E) on the date of the pregnancy test or the 6 days after the pregnancy test, (2) A pregnancy test (Pregnancy Test Exclusion Value Set) during the measurement year AND an x-ray (Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.
	Step 3 Determine the numerator. Determine the number of patients in the remaining eligible population who had at least one chlamydia test (Chlamydia Tests Value Set) during the measurement year.
	Step 4 Report two age stratifications (16-20 years and 21-24 years), and a total rate.  The total is the sum of the age stratifications. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 0409 : HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis
	5a.1 Are specs completely harmonized? Yes
	5a.2 If not completely harmonized, identify difference, rationale, impact: NQF #0409 both address chlamydia screening. However, the measures differ in the target patien populations. NQF #0409 looks for chlamydia screenings among males and females

0033 Chlamydia Screening in Women (CHL)
aged 13 and older with a diagnosis of HIV/AIDS. This measures focuses on women aged 16-24 with an indication of sexual activity, which aligns with the U.S. Preventive Services Task Force guideline for chlamydia screening in a general population. The measures are aligned in how they define chlamydia screening.
5b.1 If competing, why superior or rationale for additive value: NA

	0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-
	adjusted)
Steward	Vermont Oxford Network
Description	Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants
Туре	Outcome
Data Source	Electronic Clinical Data: Registry Vermont Oxford Network Database
	No data collection instrument provided Attachment 0304_ICD_Code_Tables.xlsx
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator	Eligible infants with one or more of the following criteria:
Statement	Criterion 1:
	Bacterial Pathogen. A bacterial pathogen is recovered from a blood and/or cerebral spinal fluid culture obtained after Day 3 of life.
	OR
	Criterion 2:
	Coagulase Negative Staphylococcus. The infant has all 3 of the following:
	Coagulase negative staphylococcus is recovered from a blood culture
	obtained from either a central line, or peripheral blood sample and/or is
	recovered from cerebrospinal fluid obtained by lumbar puncture,
	ventricular tap or ventricular drain.
	2. One or more signs of generalized infection (such as apnea, temperature
	instability, feeding intolerance, worsening respiratory distress or hemodynamic instability).
	3. Teatment with 5 or more days of intravenous antibiotics after the above
	cultures were obtained. If the infant died, was discharged, or transferred
	prior to the completion of 5 days of intravenous antibiotics, this
	condition would still be met if the intention were to treat for 5 or more
	days.
Numerator	Infants whose birth weight is between 401 and 1500 grams or whose gestational age
Details	is between 22 weeks 0 days and 29 weeks 6 days are included if they have coagulase
	negative staphylococcus or one of the bacterial pathogens listed below after day 3 of
	life, provided they meet one of the following criteria:
	1. They are born at the reporting hospital.
	OR
	2. They are admitted to any location in the reporting hospital within 28 days of birth,
	without first having gone home.
	Bacterial Pathogens List:

	T
	0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (riskadjusted)
	Achromobacter species [including Achromobacter xylosoxidans (also known as Alcaligenes xylosoxidans) and others]     Acinetobacter species
	3. Aeromonas species
	4. Alcaligenes species [Alcaligenes xylosoxidans and others]
	5. Bacteroides species
	6. Burkholderia species [Burkholderia capecia and others]
	7. Campylobacter species [Campylobacter fetus, C. jejuni and others]
	8. Chryseobacterium species
	9. Citrobacter species [Citrobacter diversus, C. freundii, C. koseri and others]
	10. Clostridium species
	<ul><li>11. Enterobacter species [Enterobacter aerogenes, E. cloacae, and others]</li><li>12. Enterococcus species [Enterococcus faecalis (also known as Streptococcus faecalis), E.faecium, and other Enterococcus species]</li></ul>
	13. Escherichia coli
	14. Flavobacterium species
	15. Haemophilus species [Haemophilus influenzae and others]
	16. Klebsiella species [Klebsiella oxytoca, K. pneumoniae and others]
	17. Listeria monocytogenes
	18. Moraxella species [Moraxella catarrhalis (also known as Branhamella catarrhalis) and others]
	19. Neisseria species [Neisseria meningitidis, N. gonorrhoeae and others]
	20. Pasteurella species
	21. Prevotella species
	22. Proteus species [Proteus mirabilis, P. vulgaris and others]
	23. Providencia species [Providencia rettgeri, and others]
	24. Pseudomonas species [Pseudomonas aeruginosa and others]
	25. Ralstonia species
	26. Salmonella species
	27. Serratia species [Serratia liquefaciens, S. marcescens and others]
	28. Staphylococcus coagulase positive [aureus]
	29. Stenotrophomonas maltophilia
	30. Streptococcus species [including Streptococcus Group A, Streptococcus Group B, Streptococcus Group D, Streptococcus pneumoniae, Strep milleri and others]
Denominator Statement	Eligible infants who are in the reporting hospital after day 3 of life.
Denominator	Infants whose birth weights are between 401 and 1500 grams or whose gestational
Details	ages are between 22 weeks 0 days and 29 weeks 6 days are included if they are in the
	reporting hospital after day 3 of life, provided they meet one of the following criteria:
	1. They are born at the reporting hospital.
	OR
	2. They are admitted to any location in the reporting hospital within 28 days of birth,
	without first having gone home.
Exclusions	Infants who do not meet eligibility criteria for birth weight, gestational age or hospital

	0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (riskadjusted)
	admission, or if the infant is discharged home, is transferred or dies prior to day 3 of life.
Exclusion	1. Any infant who meets neither of the following conditions is excluded:
details	- Birth weight between 401 and 1500 grams
	- Gestational age between 22 and 29 weeks.
	2. Outborn infants who are admitted to the reporting hospital more than 28 days after birth are excluded.
	3. Outborn infants who have been home prior to admission to the reporting hospital are excluded.
	4. Infants discharged home on or before day 3 of life are excluded.
	5. Infants who die on or before day 3 of life are excluded.
	6. Infants who transfer to another hospital on or before day 3 of life and who
	are not readmitted to the reporting hospital.
	7. Infants who transfer more than once prior to day 3 of life.
Risk	Statistical risk model
Adjustment	Logistic regression with shrinkage estimate - see S. 15a
	Provided in response box S.15a
Stratification	N/A
Type Score	Other Standardized morbidity ratio and observed minus expected values with
	confidence bounds better quality = lower score
Algorithm	1.Determine the number of infants for a reporting period who meet the population
	criteria described above. This number is termed N.
	2.Using the definitions in the Network Manual of Operations, determine the number
	of infants who had nosocomial bacterial infection after day 3 of life and prior to
	discharge home for each of the N infants. This is the number of eligible infants who
	were diagnosed as having either coagulase negative staphylococcus and/or a late
	bacterial pathogen after day 3 of life. The number identified as having nosocomial
	bacterial infection is termed the "observed number with infection" or O for short.
	3. For each of the N infants, calculate the expected value of infection by multiplying
	the coefficient times its covariate value for each covariate (coefficients provided on
	request). The covariates include:
	Gestational Age in completed weeks (GA)
	GA squared
	Small for Gestational Age (data table provided on request)
	Major birth defect (0=No, 1=Yes)
	APGAR score at 1 minute (0 to 10)
	Birth location (0=Inborn, 1=Outborn)
	Multiple gestation (0=No, 1=Yes)
	Infant gender (0=Female, 1=Male)
	Mode of delivery (0=C-Section, 1=Vaginal)
	4. Add the expected values for each of the N infants to calculate the number of
	expected cases of nosocomial bacterial infection. This number is termed the
	"expected number with infection" or E for short.
	5. Calculate the standardized morbidity ratio (SMRshrnk) for nosocomial bacterial
	infection using the values for O and E and applying the estimate for systematic

	0304 Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (riskadjusted)
	variation (v2), determined from Vermont Oxford Network analyses (provided on request).
	SMRshrnk = (O + v2) / (E + v2)
	with standard error SESMRshrnk=sqrt(1/(E+(1/v2)));
	6. Calculate the shrunken, adjusted nosocomial bacterial infection rate
	(Rateshrnk) and its 95% confidence interval.
	Rateshrnk = $(SMRshrnk \times E) / N$
	with standard error (SERateshrnk) equal to SESMRshrnk x E) / N .
	and 95% confidence interval for Rateshrnk equal to
	Rateshrnk ± 1.96 × SERateshrnk.
	7. Calculate the number of observed minus expected cases of nosocomial
	bacterial infection, adjusting for case mix and systematic variation
	(O–Eshrnk), and calculate the 95% control limits for O–Eshrnk.
	O–Eshrnk = E / SMRshrnk
	with 95% control limits equal to O–Eshrnk ± 1.96 × SESMRshrnk x E. URL
Copyright /	5.1 Identified measures: 0478 : Neonatal Blood Stream Infection Rate (NQI 03)
Disclaimer	1731 : PC-04 Health Care-Associated Bloodstream Infections in Newborns
	5a.1 Are specs completely harmonized? No
	5a.2 If not completely harmonized, identify difference, rationale, impact: The target populations are different, as are the item definitions and risk adjustment methodology.
	5b.1 If competing, why superior or rationale for additive value: N/A

	0469 PC-01 Elective Delivery
Steward	The Joint Commission
Description	This measure assesses patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding)
Туре	Process
Data Source	Electronic Clinical Data, Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment PC01_ICD_Code_Tables.xlsx
Level	Facility, Population : National
Setting	Hospital/Acute Care Facility
Numerator Statement	Patients with elective deliveries with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for one or more of the following:
	<ul> <li>Medical induction of labor as defined in Appendix A, Table 11.05 available at:     http://manual.jointcommission.org/releases/TJC2016A/ while not in Labor prior to the procedure</li> </ul>
	• Cesarean birth as defined in Appendix A, Table 11.06 and all of the following:
Noncontra	o no history of a Prior Uterine Surgery available at: http://manual.jointcommission.org/releases/TJC2016A/Patients with elective deliveries with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for one or more of the following:  Medical induction of labor as defined in Appendix A, Table 11.05 available at: http://manual.jointcommission.org/releases/TJC2015B2/ while not in Labor prior to the procedure Cesarean birth as defined in Appendix A, Table 11.06 and all of the following: not in Labor no history of a Prior Uterine Surgery available at: http://manual.jointcommission.org/releases/TJC2015B2/
Numerator Details	<ul> <li>Four data elements are used to calculate the numerator:         <ol> <li>ICD-10-PCS Other Procedure Codes - The International Classification of Diseases,</li> <li>Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.</li> <li>ICD-10-PCS Principal Procedure Code - The International Classification of Diseases,</li> <li>Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.</li> </ol> </li> </ul>

# 0469 PC-01 Elective Delivery 3. Labor- Documentation that the patient was in labor prior to induction and/or cesarean birth. Allowable values: Yes or No/UTD. 4. Prior Uterine Surgery- Documentation that the patient had undergone prior uterine surgery which includes: a prior classical cesarean birth defined as a vertical incision into the upper uterine segment, a prior myomectomy, a prior uterine surgery resulting in a perforation of the uterus due to an accidental injury, a history of a uterine window or thinning of the uterine wall noted during prior uterine surgery or during ultrasound, a history of uterine rupture requiring surgical repair, a history of a cornual ectopic pregnancy or history of a transabdominal cerclage. Allowable Values: Yes or No/UTD Patients are eligible for the numerator population with ICD-10-PCS Other Procedure Codes or ICD-10-PCS Principal Procedure Code for medical induction or with ICD-10-PCS Other Procedure Codes or ICD-10-PCS Principal Procedure Code for cesarean birth when the allowable value equals "no" for the data elements Labor and Prior Uterine Surgery. Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Four data elements are used to calculate the numerator: 1. ICD 10 PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization. 2. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication. 3. Labor-Documentation that the patient was in labor prior to induction and/or cesarean birth. Allowable values: Yes or No/UTD. 4. Prior Uterine Surgery Documentation that the patient had undergone prior uterine surgery which includes: a prior classical cesarean birth defined as a vertical incision into the upper uterine segment, a prior myomectomy, a prior uterine surgery resulting in a perforation of the uterus due to an accidental injury, a history of a uterine window or thinning of the uterine wall noted during prior uterine surgery or during ultrasound, a history of uterine rupture requiring surgical repair, a history of a cornual ectopic pregnancy or history of a transabdominal cerclage. Allowable Values: Yes or No/UTD

Patients are eligible for the numerator population with ICD-10-PCS Other Procedure Codes or ICD-10-PCS Principal Procedure Code for medical induction or with ICD-10-PCS Other Procedure Codes or ICD-10-PCS Principal Procedure Code for cesarean birth when the allowable value equals "no" for the data elements Labor and Prior Uterine Surgery.

Updates available at: http://manual.jointcommission.org/releases/TJC2015B2/

# Denominator Statement

Patients delivering newborns with >= 37 and < 39 weeks of gestation completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: http://manual.jointcommission.org/releases/TJC2016A/ and with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for

Denominator Details    Denominator Details   Six data elements are used to calculate the denominator:	
http://manual.jointcommission.org/releases/TJC2016A/Patients delivering newbowith >= 37 and < 39 weeks of gestation completed with ICD 10 PCS Principal or Ot Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: http://manual.jointcommission.org/releases/TJC2015B2/ and with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for planned cesarea birth in labor as defined in Appendix A, Table 11.06.1 available at: http://manual.jointcommission.org/releases/TJC2015B2/  Denominator Details    Six data elements are used to calculate the denominator:	
Details  1. Admission Date – The month, day and year of admission to acute inpatient care 2. Birthdate - The month, day and year the patient was born. 3. Discharge Date – The month day and year the patient was discharged from acut care, left against medical advice or expired during the stay. 4. Gestational Age – Documentation of the weeks of gestation completed at the ti of delivery. Allowable Values: 1-50 or UTD. 5. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnos for this hospitalization. 6. ICD-10-CM Principal Diagnosis Code - The International Classification of Disease Tenth Revision, Clinical Modification code associated with the diagnosis establishe after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization. Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Severele	rns her
1. Admission Date — The month, day and year of admission to acute inpatient care  2. Birthdate - The month, day and year the patient was born.  3. Discharge Date — The month day and year the patient was discharged from acut care, left against medical advice or expired during the stay.  4. Gestational Age — Documentation of the weeks of gestation completed at the ti of delivery. Allowable Values: 1-50 or UTD.  5. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnos for this hospitalization.  6. ICD-10-CM Principal Diagnosis Code - The International Classification of Disease Tenth Revision, Clinical Modification code associated with the diagnosis establishe after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.  Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Severate data elements are used to calculate the denominator:	
<ul> <li>2. Birthdate - The month, day and year the patient was born.</li> <li>3. Discharge Date - The month day and year the patient was discharged from acut care, left against medical advice or expired during the stay.</li> <li>4. Gestational Age - Documentation of the weeks of gestation completed at the ti of delivery. Allowable Values: 1-50 or UTD.</li> <li>5. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnos for this hospitalization.</li> <li>6. ICD-10-CM Principal Diagnosis Code - The International Classification of Disease Tenth Revision, Clinical Modification code associated with the diagnosis establishe after study to be chiefly responsible for occasioning the admission of the patient function that the diagnosis code is the patient for this hospitalization.</li> <li>Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Several data elements are used to calculate the denominator:</li> </ul>	
3. Discharge Date – The month day and year the patient was discharged from acut care, left against medical advice or expired during the stay.  4. Gestational Age – Documentation of the weeks of gestation completed at the tile of delivery. Allowable Values: 1-50 or UTD.  5. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnost for this hospitalization.  6. ICD-10-CM Principal Diagnosis Code - The International Classification of Disease Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.  Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Severate elements are used to calculate the denominator:	•
of delivery. Allowable Values: 1-50 or UTD.  5. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnos for this hospitalization.  6. ICD-10-CM Principal Diagnosis Code - The International Classification of Disease Tenth Revision, Clinical Modification code associated with the diagnosis establishe after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.  Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Severable delements are used to calculate the denominator:	<u>e</u>
Tenth Revision, Clinical Modification codes associated with the secondary diagnost for this hospitalization.  6. ICD-10-CM Principal Diagnosis Code - The International Classification of Disease Tenth Revision, Clinical Modification code associated with the diagnosis establisher after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.  Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Seventiate elements are used to calculate the denominator:	<u>ne</u>
Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.  Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Sevented at a elements are used to calculate the denominator:	<u>es</u>
after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.  Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Several data elements are used to calculate the denominator:	<u>5,</u>
this hospitalization.  Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Several data elements are used to calculate the denominator:	
Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Seve	<u>or</u>
data elements are used to calculate the denominator:	
	<del>n</del>
	_
2. Birthdate - The month, day and year the patient was born.	'
3. Clinical Trial - Documentation that during this hospital stay the patient was enro	<del>lled</del>
in a clinical trial in which patients with pregnancy were being studied. Allowable values: Yes or No/UTD	
4. Discharge Date – The month day and year the patient was discharged from acut	e
care, left against medical advice or expired during the stay.	
5. Gestational Age – Documentation of the weeks of gestation completed at the ti	<del>ne</del>
of delivery. Allowable Values: 1-50 or UTD.	
6. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnos	ac
for this hospitalization.	<del>23</del>
7. ICD-10-CM Principal Diagnosis Code - The International Classification of Disease	<u>,                                    </u>
Tenth Revision, Clinical Modification code associated with the diagnosis established	
after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.	¥
Updates available at: http://manual.jointcommission.org/releases/TJC2015B2/	
Exclusions  • ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for conditions possibly justifying elective delivery prior to 39 weeks gestation as defin in Appendix A, Table 11.07	ed
• Less than 8 years of age	

	0469 PC-01 Elective Delivery
	• Greater than or equal to 65 years of age
	• Length of Stay >120 days
	• Enrolled in clinical trials
Evaluai a m	Gestational Age < 37 or >= 39 weeks or UTD
Exclusion details	<ul> <li>Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for conditions for possibly justifying elective delivery are excluded.</li> </ul>
	• The patient age in years is equal to the Admission Date minus the Birthdate.  Patients less than 8 years of age or greater or equal to 65 years of age are excluded.
	• Length of stay (LOS) in days is equal to the Discharge Date minus the Admission
	Date. If the LOS is greater than 120 days, the patient is excluded.
	• Patients with a Gestational Age less than 37 weeks or equal to or greater than 39
	weeks or UTD are excluded from the measure. Patients with ICD-10-CM Principal
	Diagnosis Code or Other Diagnosis Codes for conditions for possibly justifying elective
	delivery are excluded.
	• The patient age in years is equal to the Admission Date minus the Birthdate.
	Patients less than 8 years of age or greater or equal to 65 years of age are excluded.
	◆ Length of stay (LOS) in days is equal to the Discharge Date minus the Admission
	Date. If the LOS is greater than 120 days, the patient is excluded.
	<ul> <li>Patients are excluded if "Yes" is selected for Clinical Trial.</li> </ul>
	• Patients with a Gestational Age less than 37 weeks or equal to or greater than 39
	weeks or UTD are excluded from the measure.
Risk	No risk adjustment or risk stratification
Adjustment	Not Applicable
Stratification	Not Applicable
Type Score	Rate/proportion better quality = lower score
Algorithm	1. Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
	2. Check ICD-10-CM Principal or Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table
	11.07, the case will proceed to a Measure Category Assignment of B and will not be in
	the Measure Population. Stop processing.
	b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.07,
	continue processing and proceed to Gestational Age.
	3. Check Gestational Age
	<del></del>
	a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
	b. If Gestational Age is less than 37 or greater than or equal to 39 or equal to a Not
	Unable to Determine Value, the case will proceed to a Measure Category Assignment
	of B and will not be in the measure population. Stop Processing.
	c. If Gestational Age is greater than or equal to 37 and less than 39, continue
	and the second s
	processing and proceed to recheck ICD-10-CM Principal Procedure or Other Diagnosis

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- 4. Recheck ICD-10-CM Principal or Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.06.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.06.1, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes.
- 5. Check ICD-10-PCS Principal or Other Procedure Codes
- a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop Processing.
- <u>b. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.05, continue processing and proceed to Labor</u>
- i. If Labor is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
- ii. If Labor equals No, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop Processing.
- c. If none of the ICD-9-CM Principal Procedure Codes is on Table 11.05, continue processing and proceed to recheck ICD-10-PCS Principal or Other Procedure Codes.
- 6. Recheck ICD-10-PCS Principal or Other Procedure Codes
- a. If none of the ICD-10-PCS Principal or Other Procedure Code is on Table 11.06, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop Processing.
- b. If at least one of the ICD-10-PCS Principal or Other Procedure Code is on Table 11.06, continue processing and proceed to Labor.
- 7. Check Labor
- a. If Labor is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
- b. If Labor equals Yes, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c. If Labor equals No, continue processing and proceed to Spontaneous Rupture of Membranes.
- 8. Check Prior Uterine Surgery
- <u>a. If Prior Uterine Surgery is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.</u>
- b. If Prior Uterine Surgery equals Yes, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c. If Prior Uterine Surgery equals No, the case will proceed to a Measure Category
  Assignment of E and will be in the Numerator Population. Stop Processing. Available
  at measure-specific web page URL identified in S.1 1. Start processing. Run cases that
  are included in the PC-Mother Initial Patient Population and pass the edits defined in
  the Transmission Data Processing Flow: Clinical through this measure.
- 2. Check ICD-10-CM Principal or Other Diagnosis Codes

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- a. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.07, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.07, continue processing and proceed to Clinical Trial.
- 3. Check Clinical Trial
- a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
- b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop Processing.
- c. If Clinical Trial equals No, continue processing and proceed to Gestational Age.
- 4. Check Gestational Age
- a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
- b. If Gestational Age is less than 37 or greater than or equal to 39 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop Processing.
- c. If Gestational Age is greater than or equal to 37 and less than 39, continue processing and proceed to recheck ICD-10-CM Principal Procedure or Other Diagnosis Codes.
- 5. Recheck ICD-10-CM Principal or Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.06.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.06.1, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes. 6. Check ICD-10-PCS Principal or Other Procedure Codes
- a. If all of the ICD-10 PCS Principal or Other Procedure Codes are missing, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop Processing.
- b. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.05, continue processing and proceed to Labor
- i. If Labor is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
- ii. If Clinical Trial equals Yes, the case will proceed to a Measure Category
  Assignment of D and will be in the Measure Population. Stop Processing.
- iii. If Labor equals No, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop Processing.
- $\hbox{c. If none of the ICD-9-CM-Principal Procedure Codes is on Table 11.05, continue processing and proceed to recheck ICD-10-PCS-Principal or Other Procedure Codes. } \\$
- 7. Recheck ICD-10-PCS Principal or Other Procedure Codes
- a. If none of the ICD-10-PCS Principal or Other Procedure Code is on Table 11.06, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop Processing.
- b. If at least one of the ICD-10 PCS Principal or Other Procedure Code is on Table 11.06, continue processing and proceed to Labor.

	0469 PC-01 Elective Delivery
	8. Check Labor
	a. If Labor is missing, the case will proceed to a Measure Category Assignment of X
	and will be rejected. Stop Processing.
	b. If Labor equals Yes, the case will proceed to a Measure Category Assignment of D
	and will be in the Measure Population. Stop processing.
	c. If Labor equals No, continue processing and proceed to Spontaneous Rupture of
	Membranes.
	9. Check Prior Uterine Surgery
	a. If Prior Uterine Surgery is missing, the case will proceed to a Measure Category
	Assignment of X and will be rejected. Stop Processing.
	b. If Prior Uterine Surgery equals Yes, the case will proceed to a Measure Category
	Assignment of D and will be in the Measure Population. Stop processing.
	c. If Prior Uterine Surgery equals No, the case will proceed to a Measure Category
	Assignment of E and will be in the Numerator Population. Stop Processing. Available
	at measure-specific web page URL identified in S.1
Copyright /	5.1 Identified measures:
Disclaimer	
	5a.1 Are specs completely harmonized?
	5a.2 If not completely harmonized, identify difference, rationale, impact: Not
	Applicable
	5b.1 If competing, why superior or rationale for additive value: Not Applicable

	0470 Incidence of Episiotomy
Steward	Christiana Care Health System
Description	Percentage of vaginal deliveries (excluding those coded with shoulder dystocia) during which an episiotomy is performed.
Туре	Process
Data Source	Administrative claims, Paper Medical Records UB04 claims data.
	No data collection instrument provided Attachment ICD-
	10_Codes_NQF_Episiotomy_FINAL_NQF_Submission.xlsx
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	Number of episiotomy procedures (ICD-9 code 72.1, 72.21, 72.31, 72.71, 73.6; ICD-10 PCS:0W8NXZZ performed on women undergoing a vaginal delivery (excluding those with shoulder dystocia ICD-10; O66.0) during the analytic period- monthly, quarterly, yearly etc.
Numerator Details	Any vaginal delivery with one of the ICD-9 codes for episiotomy- 72.1, 72.21, 72.31, 72.71, 73.6 (ICD-10 PCS:0W8NXZZ)
Denominator	All vaginal deliveries during the analytic period- monthly, quarterly, yearly etc.
Statement	excluding those coded with a shoulder dystocia ICD-1: O66.0).
Denominator Details	Any woman with a vaginal delivery calculated by either MS DRG 774,775,767,768
Exclusions	Women who have a coded complication of shoulder dystocia. In the case of shoulder dystocia, an episiotomy is performed to free the shoulder and prevent/mitigate birth injury to the infant.
Exclusion	Vaginal deliveries coded with shoulder dystocia, ICD-9 code 660.41, 660.42( ICD-10
details	CM: 066.0)
Risk	No risk adjustment or risk stratification
Adjustment	NA
	URL
Stratification	NA
Type Score	Rate/proportion better quality = lower score
Algorithm	A. Identify all vaginal deliveries for time period in question
	B. Exclude those coded with shoulder dystocia to obtain denominator cases
	C. Of the denominator cases, identify those coded with an episiotomy
	D Divide numerator by denominator and calculate the rate or convert a percent No
	diagram provided
Copyright / Disclaimer	5.1 Identified measures:
	5a.1 Are specs completely harmonized? Yes
	5a.2 If not completely harmonized, identify difference, rationale, impact:
	5b.1 If competing, why superior or rationale for additive value:

	0471 PC-02 Cesarean Birth
Steward	The Joint Commission
Description	This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean birth. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).
Туре	Outcome
Data Source	Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment  PC02_ICD_and_CS_Direct_Standardization_Template_Nulliparous_Births.xlsx
Level	Facility, Population: National
Setting	Hospital/Acute Care Facility
Numerator Statement	The outcome being measured is: Patients with cesarean births with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for cesarean birth as defined in Appendix A, Table 11.06 available at:  http://manual.jointcommission.org/releases/TJC2016A5B2/
Numerator Details	Two data elements are used for the observed outcome and to calculate the numerator:  1. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.  2. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.
Denominator Statement	The outcome target population being measured is: Nulliparous patients delivered of a live term singleton newborn in vertex presentation ICD-10-PCS Principal or Other Diagnosis Codes for delivery as defined in Appendix A, Tables 11.01.1 available at: http://manual.jointcommission.org/releases/TJC2016A5B2/
Denominator Details	Seven data elements are used to identify the outcome target population and to calculate the denominator:  1. Admission Date – The month, day and year of admission to acute inpatient care.

#### 0471 PC-02 Cesarean Birth

- 2. Birthdate The month, day and year the patient was born.
- 3. Discharge Date The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
- 4. Gestational Age Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD.
- <u>5. ICD-10-CM Other Diagnosis Codes The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.</u>
- 6. ICD-9-CM Principal Diagnosis Code The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
- 7. Number of Previous Live Births The number of live deliveries the patient experienced prior to current hospitalization. Allowable Values: 0-50 or UTD.

  Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Eight data elements are used to identify the outcome target population and to calculate the denominator:
- 1. Admission Date The month, day and year of admission to acute inpatient care.
- 2. Birthdate The month, day and year the patient was born.
- 3. Clinical Trial Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients with pregnancy were being studied. Allowable values: Yes or No/UTD
- 4. Discharge Date The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
- 5. Gestational Age Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD.
- 6. ICD-10-CM Other Diagnosis Codes The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
- 7. ICD-9-CM Principal Diagnosis Code The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
- 8. Number of Previous Live Births The number of live deliveries the patient experienced prior to current hospitalization. Allowable Values: 0-50 or UTD. Updates available at: http://manual.jointcommission.org/releases/TJC2015B2/

# **Exclusions**

- ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for multiple gestations and other presentations as defined in Appendix A, Table 11.09
- Less than 8 years of age
- Greater than or equal to 65 years of age
- Length of Stay >120 days
- Enrolled in clinical trials
- Gestational Age < 37 weeks or UTD

	0471 PC-02 Cesarean Birth
Exclusion details	<ul> <li>• Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for multiple gestations and other presentations are excluded.</li> <li>• The patient age in years is equal to the Admission Date minus the Birthdate.</li> <li>• Patients less than 8 years of age or greater or equal to 65 years of age are excluded.</li> <li>• Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days, the patient is excluded.</li> <li>• Patients with a Gestational Age less than 37 weeks or UTD are excluded from the measure.</li> <li>• Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for multiple gestations and other presentations are excluded.</li> <li>• The patient age in years is equal to the Admission Date minus the Birthdate.</li> <li>Patients less than 8 years of age or greater or equal to 65 years of age are excluded.</li> <li>• Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days, the patient is excluded.</li> <li>• Patients are excluded if "Yes" is selected for Clinical Trial.</li> <li>• Patients with a Gestational Age less than 37 weeks or UTD are excluded from the</li> </ul>
	measure.
Risk Adjustment	No risk adjustment or risk stratification  Not Applicable Other Direct rate standardization to the distribution of the 2006 US population of nulliparous births. See attached spreadsheet for age bands used in the direct standardization.  Not Applicable
_	Available in attached Excel or csv file at S.2b
Stratification	Not Applicable The Stratification Table used for direct standardization includes the Set Number, Stratified By, and the Age Stratum (Allowable Value). The Age Stratum refers to Patient Age which is calculated by the data element Admission Date minus the data element Bir
Type Score	Rate/proportion better quality = lower score
Algorithm	<ol> <li>Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.</li> <li>Check ICD-10-CM Principal or Other Diagnosis Codes         <ol> <li>If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.09, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.</li> <li>If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.09, continue processing and proceed to recheck ICD-10-CM Principal or Other Diagnosis Codes.</li> <li>Recheck ICD-10-CM Principal or Other Diagnosis Codes</li></ol></li></ol>

# 0471 PC-02 Cesarean Birth

- 4. Check Gestational Age
- a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Gestational Age is less than 37 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Gestational Age is greater than or equal to 37, continue processing and proceed to Parity.
- 5. Check Number of Previous Live Births
- a. If Number of Previous Live Births is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Number of Previous Live Births is greater than 0, the case will proceed to a Measure Category Assignment of B for and will not be in the measure population. Stop processing.
- c. If Number of Previous Live Births equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- d. If Parity equals 0, continue processing and proceed to check ICD-10-PCS Principal or Other Procedure Codes.
- 6. Check ICD-10-PCS Principal or Other Procedure Codes
- a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.06, the case will proceed to a Measure Category Assignment of D and will be in the measure population. Stop processing.
- b. If at least one of the ICD-10-PCS Principal or Other Procedure Code is on Table
  11.06, the case will proceed to a Measure Category Assignment of E and will be in the
  Numerator Population. Stop processing. Available at measure-specific web page URL
  identified in S.1 1. Start processing. Run cases that are included in the PC-Mother
  Initial Patient Population and pass the edits defined in the Transmission Data
  Processing Flow: Clinical through this measure.
- 2. Check ICD-10-CM Principal or Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.09, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.09, continue processing and proceed to recheck ICD-10-CM Principal or Other Diagnosis Codes.
- 3. Recheck ICD-10-CM Principal or Other Diagnosis Codes
- a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.08, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.08, continue processing and proceed to Clinical Trial.
- 4. Check Clinical Trial

# 0471 PC-02 Cesarean Birth a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing. b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing. c. If Clinical Trial equals No, continue processing and proceed to Gestational Age. 5. Check Gestational Age a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing. b. If Gestational Age is less than 37 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing. c. If Gestational Age is greater than or equal to 37, continue processing and proceed to Parity. 6. Check Number of Previous Live Births a. If Number of Previous Live Births is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing. b. If Number of Previous Live Births is greater than 0, the case will proceed to a Measure Category Assignment of B for and will not be in the measure population. Stop processing. c. If Number of Previous Live Births equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. d. If Parity equals 0, continue processing and proceed to check ICD-10-PCS Principal or Other Procedure Codes. 7. Check ICD-10-PCS Principal or Other Procedure Codes a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.06, the case will proceed to a Measure Category Assignment of D and will be in the measure population. Stop processing. b. If at least one of the ICD-10-PCS Principal or Other Procedure Code is on Table 11.06, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. Available at measure-specific web page URL identified in S.1

# Copyright / Disclaimer

- 5.1 Identified measures:
- 5a.1 Are specs completely harmonized?
- 5a.2 If not completely harmonized, identify difference, rationale, impact: Not Applicable
- 5b.1 If competing, why superior or rationale for additive value: Not Applicable

	0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospita or Birthing Facility Discharge
Steward	Centers for Disease Control and Prevention
Description	Percent of live newborn infants that receive Hepatitis B vaccination before discharge (or within 1 month of life, if the infant had an extended hospital stay) at each single hospital/birthing facility during given time period (one year).
Туре	Process
Data Source	Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Other, Paper Medical Records, Electronic Clinical Data: Pharmacy, Electronic Clinical Data: Registry N/A No data collection instrument provided Attachment ICD_9_and_10_code_tables-635320538568917230-635627868862357763-635787044982869948.pdf
Level	Facility
Setting	Hospital/Acute Care Facility
Numerator Statement	The number of live newborn infants administered Hepatitis B vaccine prior to discharge (or within 1 month of life, if the infant had an extended hospital stay)from the hospital/birthing facility ("birth dose" of Hepatitis B vaccine).
Numerator Details	Per hospital/birthing facility, the number of live newborn infants, during a calendar year, who received a dose of Hepatitis B vaccine prior to hospital/birthing facility discharge (or within 1 month of life, if the infant had an extended hospital stay). Acceptable data sources include: pharmacy records, vaccine consent forms, medication administration records, claims data, nurses notes, electronic medical records, or other available records.  a. Suggested ICD-9 code V05.3 converts to ICD-10 code z23 (type of immunization given will be identified by the procedure code—effective October 1, 2013. Procedure code for viral hepatitis unknown. Suggest the use of ICD-10 code z23.9955 described as "prophylactic administration of vaccine against other diseases" or ICD-10 code z23.9959 described as "other vaccination or inoculation"): http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z20-Z28/Z23-/Z23 b. CPT administration codes: 90744 (Hepatitis B vaccine) and 90471 (immunization administration code)
Denominator Statement	The number of live newborn infants born at the hospital/birthing facility during the reporting window (one calendar year).
Denominator Details	<ul> <li>a. The number of live births at the hospital/birthing facility during one calendar year can be determined from a variety of sources, including the paper or electronic patient records, nursery birth records, or other available records. ICD-10 codes can be used. Stillborn deliveries are not included in the definition of the measure.  i. ICD-10 codes to be used (link: http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z30-Z39/Z37-/#Z37 and http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z30-Z39/Z38-/#Z38):  1. Z37.0 Single live birth 2. Z37.2 Twins, both live born</li> </ul>

	0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge
	<ul><li>3. Z37.3 Twins, one live born and one stillborn</li><li>4. Z37.50 Multiple births, unspecified, all live born</li></ul>
	<ul><li>6. Z37.52 Quadruplets, all live born</li><li>7. Z37.53 Quintuplets, all live born</li></ul>
	' '
	· · ·
	<ul><li>11. Z37.61 Triplets, some live born</li><li>12. Z37.62 Quadruplets, some live born</li></ul>
	13. Z37.63 Quintuplets, some live born
	14. Z37.64 Sextuplets, some live born
	15. Z37.69 Other multiple births, some live born
	16. Z38.00 Single live born infant, delivered vaginally
	17. Z38.01 Single live born infant, delivered by cesarean
	18. Z38.1 Single live born infant, born outside hospital
	19. Z38.2 Single live born infant, unspecified as to place of birth
	20. Z38.30 Twin live born infant, delivered vaginally
	21. Z38.31 Twin live born infant, delivered by cesarean
	22. Z38.4 Twin live born infant, born outside hospital
	23. Z38.5 Twin live born infant, unspecified as to place of birth
	24. Z38.61 Triplet live born infant, delivered vaginally
	25. Z38.62 Triplet live born infant, delivered by cesarean
	26. Z38.63 Quadruplet live born infant, delivered vaginally
	27. Z38.64 Quadruplet live born infant, delivered by cesarean
	28. Z38.65 Quintuplet live born infant, delivered vaginally
	29. Z38.66 Quintuplet live born infant, delivered by cesarean
	30. Z38.68 Other multiple live born infant, delivered vaginally
	31. Z38.69 Other multiple live born infant, delivered by cesarean
	32. Z38.7 Other multiple live born infant, born outside hospital
	33. Z38.8 Other multiple live born infant, unspecified as to place of birth
	The results of this measure will identify that the coverage excludes infants whose
	parent/guardian refused Hepatitis B vaccine for their infant before hospital or facility
	discharge (or by 1 month of age if during a prolonged stay).
Exclusions	a. Determine number of live newborn infants born at the hospital/birthing facility
	whose parent/guardian refused Hepatitis B birth dose and exclude from the
	denominator. ICD-10 code for this information will include the following (link:
	http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z20-Z28/Z28-/#Z28):
	i. Z28.82 Immunization not carried out because of caregiver refusal
Exclusion	Subtract from the number of infants discharged from the hospital/birthing facility, the

	0475 Hepatitis B Vaccine Coverage Among All Live Newborn Infants Prior to Hospital or Birthing Facility Discharge	
details	number of infants born at the facility during one calendar year whose	
	parent/guardian refused administration of a birth dose of Hepatitis B vaccine before	
	discharge (or by 1 month of age if during a prolonged stay) from the hospital/birthing	
	facility. Information on exclusions might come from a variety of sources, including	
	vaccine consent forms, clinical notes, and medication administration records. No	
	billing codes exist for vaccine refusal; therefore ICD-10 code Z28.82 should be used to	
	document vaccine refusal.	
Risk	No risk adjustment or risk stratification	
Adjustment	N/A	
Stratification	N/A	
Type Score	Rate/proportion better quality = higher score	
Algorithm	a. Determine the number of live newborn infants at each hospital/birthing facility	
	during one calendar year	
	b. Determine the number of live newborn infants born at the same hospital/birthing	
	facility during the same calendar year who received a dose of Hepatitis B vaccine	
	before hospital discharge (or by 1 month of age if during a prolonged stay)	
	c. Determine the number of parental/guardian refusals of Hepatitis B birth dose	
	d. Divide the number of live newborn infants born at the same hospital/birthing	
	facility during the same time period who received a dose of Hepatitis B vaccine before	
	hospital discharge (or by 1 month of age if during a prolonged stay)(b), by the number	
	of live newborns at the same hospital/birthing facility during the same time period(a)	
	minus those who were not vaccinated because of parent/guardian refusal of Hepatitis	
	B birth dose(c)[b/(a-c)]. No diagram provided	
Copyright /	5.1 Identified measures:	
Disclaimer		
	5a.1 Are specs completely harmonized?	
	5a.2 If not completely harmonized, identify difference, rationale, impact: N/A	
	5b.1 If competing, why superior or rationale for additive value: N/A	

	0476 PC-03 Antenatal Steroids	
Description	This measure assesses patients at risk of preterm delivery at >=24 and <34 weeks gestation receiving antenatal steroids prior to delivering preterm newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).	
Туре	Process	
Data Source	Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment PC03_ICD_Code_Tables.xlsx	
Level	Facility, Population : National	
Setting	Hospital/Acute Care Facility	
Numerator	Patients with antenatal steroids initiated prior to delivering preterm newborns (refer	
Statement	to Appendix C, Table 11.0, antenatal steroid medications available at: http://manual.jointcommission.org/releases/TJC2016A5B2/)	
Numerator	One data element is used to calculate the numerator:	
Details	1. Antenatal Steroids Initiated- Documentation that antenatal steroids were initiated before delivery. Initial antenatal steroid therapy is 12mg betamethasone IM or 6mg dexamethasone IM. Allowable values: Yes or No/UTD. Cases are eligible for the numerator population when allowable value = Yes is selected.  Updates available at: http://manual.jointcommission.org/releases/TJC2016A5B2/	
Denominator	Patients delivering live preterm newborns with >=24 and <34 weeks gestation	
Statement	completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: http://manual.jointcommission.org/releases/TJC2016A5B2/	
Denominator Seven data elements are used to calculate the denominator:		
Details	<ol> <li>Admission Date – The month, day and year of admission to acute inpatient care.</li> <li>Birthdate - The month, day and year the patient was born.</li> <li>Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.</li> <li>Gestational Age – Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD.</li> <li>ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.</li> <li>ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established</li> </ol>	

## 0476 PC-03 Antenatal Steroids after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization. 7. Reason for Not Initiating Antenatal Steroids - Reasons for not initiating antenatal steroids before delivery are clearly documented in the medical record. Reasons for not initiating antenatal steroids may include fetal distress, imminent delivery or other reasons documented by physician/APN/PA/CNM. Allowable Values: Yes or No/UTD Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Eight data elements are used to calculate the denominator: 1. Admission Date - The month, day and year of admission to acute inpatient care. 2. Birthdate - The month, day and year the patient was born. 3. Clinical Trial - Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients with pregnancy were being studied. Allowable values: Yes or No/UTD 4. Discharge Date - The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay. 5. Gestational Age - Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD. 6. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization. 7. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization. 8. Reason for Not Initiating Antenatal Steroids - Reasons for not initiating antenatal steroids before delivery are clearly documented in the medical record. Reasons for not initiating antenatal steroids may include fetal distress, imminent delivery or other reasons documented by physician/APN/PA/CNM. Allowable Values: Yes or No/UTD Updates available at: http://manual.jointcommission.org/releases/TJC2015B2/ **Exclusions** • Less than 8 years of age • Greater than or equal to 65 years of age • Length of Stay >120 days • Enrolled in clinical trials • Documented Reason for Not Initiating Antenatal Steroids • ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for fetal demise as defined in Appendix A, Table 11.09.1 available at: http://manual.jointcommission.org Gestational Age < 24 or >= 34 weeks or UTD **Exclusion** • The patient age in years is equal to the Admission Date minus the Birthdate. Patients less than 8 years of age or greater or equal to 65 years of age are excluded. details • Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days, the patient is excluded.

	0476 PC-03 Antenatal Steroids			
	• The data element Reason for Not Initiating Antenatal Steroids is used to determine if the patient had a documented reason for not receiving antenatal steroids.			
	• Patients with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for fetal demise are excluded.			
	• Patients with a Gestational Age less than 24 weeks or equal to or greater than 34			
	weeks or UTD are excluded from the measure. • The patient age in years is equal to			
	the Admission Date minus the Birthdate. Patients less than 8 years of age or greater			
	or equal to 65 years of age are excluded.			
	• Length of stay (LOS) in days is equal to the Discharge Date minus the Admission			
	Date. If the LOS is greater than 120 days, the patient is excluded.			
	<ul> <li>Patients are excluded if "Yes" is selected for Clinical Trial.</li> </ul>			
	• The data element Reason for Not Initiating Antenatal Steroids is used to determine			
if the patient had a documented reason for not receiving antenatal steroids.  • Patients with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis For fetal demise are excluded.				
			<ul> <li>Patients with a Gestational Age less than 24 weeks or equal to or greater than 34 weeks or UTD are excluded from the measure.</li> </ul>	
Risk	No risk adjustment or risk stratification			
Adjustment	Not Applicable			
Stratification	Not applicable, the measure is not stratified.			
Type Score	Rate/proportion better quality = higher score			
Algorithm	1. Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.			
	2. Check ICD-10-CM Principal or Other Diagnosis Codes			
	a. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.09.1, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.			
	b. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.09.1, continue processing and proceed to Gestational Age.			
	3. Check Gestational Age			
	a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.			
	b. If Gestational Age is less than 24 or greater than or equal to 34 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.			
	c. If Gestational Age is greater than or equal to 24 and less than 34, continue processing and proceed to Antenatal Steroids Initiated.			
	4. Check Antenatal Steroids Initiated			
	a. If Antenatal Steroids Initiated is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.			
	b. If Antenatal Steroids Initiated equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.			
	c. If Antenatal Steroids Initiated equals No, continue processing and proceed to			

#### 0476 PC-03 Antenatal Steroids

Reason for Not Initiating Antenatal Steroids.

- 5. Check Reason for Not Initiating Antenatal Steroids
- a. If Reason for Not Initiating Antenatal Steroids is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Reason for Initiating Antenatal Steroids equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Reason for Not Initiating Antenatal Steroids equals No, the case will proceed to a Measure Category Assignment of D and will be in the measure population. Stop processing. Available at measure-specific web page URL identified in S.1 1. Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
- 2. Check ICD-10-CM Principal or Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.09.1, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- b. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.09.1, continue processing and proceed to Clinical Trial.
- 3. Check Clinical Trial
- a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Clinical Trial equals No, continue processing and proceed to Gestational Age.
- 4. Check Gestational Age
- a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Gestational Age is less than 24 or greater than or equal to 34 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Gestational Age is greater than or equal to 24 and less than 34, continue processing and proceed to Antenatal Steroids Initiated.
- 5. Check Antenatal Steroids Initiated
- a. If Antenatal Steroids Initiated is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Antenatal Steroids Initiated equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. c. If Antenatal Steroids Initiated equals No, continue processing and proceed to Reason for Not Initiating Antenatal Steroids.
- 6. Check Reason for Not Initiating Antenatal Steroids
- a. If Reason for Not Initiating Antenatal Steroids is missing, the case will proceed to a

	0476 PC-03 Antenatal Steroids	
	Measure Category Assignment of X and will be rejected. Stop processing.	
	b. If Reason for Initiating Antenatal Steroids equals Yes, the case will proceed to a	
	Measure Category Assignment of B and will not be in the measure population. Stop	
	<del>processing.</del>	
	c. If Reason for Not Initiating Antenatal Steroids equals No, the case will proceed to a	
	Measure Category Assignment of D and will be in the measure population. Stop	
	processing. Available at measure-specific web page URL identified in S.1	
Copyright /	5.1 Identified measures:	
Disclaimer		
	5a.1 Are specs completely harmonized?	
	5a.2 If not completely harmonized, identify difference, rationale, impact: Not	
	Applicable	
	5b.1 If competing, why superior or rationale for additive value: Not Applicable	

	0478 Neonatal Blood Stream Infection Rate (NQI 03)	
Steward	Agency for Healthcare Research and Quality	
Description	Discharges with healthcare-associated blood stream infection per 1,000 discharges	
	for newborns and outborns with birth weight of 500 grams or more but less than	
	1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of	
	1,500 grams or more and death, an operating room procedure, mechanical	
	ventilation, or transferring from another hospital within two days of birth. Excludes	
	discharges with a length of stay less than 3 days and discharges with a principal	
diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia.		
Туре	Outcome	
Data Source	Administrative claims While the measure is tested and specified using data from the	
	Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the	
	measure testing form), the measure specifications and software are specified to be	
	used with any ICD-9-CM- or ICD-10-CM/PCS coded administrative	
	billing/claims/discharge dataset.	
	Available at measure-specific web page URL identified in S.1 Attachment	
	NQI03_Tech_Specs_v6.1alpha_160211xlsx.xlsx	
Level	Facility	
Setting	Hospital/Acute Care Facility	
Numerator	Discharges, among cases meeting the inclusion and exclusion rules for the	
Statement	denominator, with either:	
	any secondary ICD-9-CM or ICD-10 CM diagnosis codes for other septicemia;	
	or	

	0478 Neonatal Blood Stream Infection Rate (NQI 03)		
	any secondary ICD-9-CM or ICD-10 CM diagnosis codes for newborn septicemia or bacteremia and		
	any secondary ICD-9-CM or ICD-10 CM diagnosis codes for staphylococcal or      Cross possible bacterial infection.		
NI	Gram-negative bacterial infection		
Numerator	Please see attached excel file in S.2b. for version 6.1 alpha specifications.		
Details	All and have a second at the control of the control		
Denominator	All newborns and outborns with either:		
Statement	• a birth weight of 500 to 1,499 grams (Birth Weight Categories 2, 3, 4 and 5);		
	Or		
	any-listed ICD-9-CM or ICD-10 CM diagnosis codes for gestational age     between 34 and 30 weeks are		
	between 24 and 30 weeks; or		
	• a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6,		
	7, 8, or 9) and death (DISP=20); or		
	a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6,     a = 0) and any listed ICD 0 CM at ICD 10 BCC areas due to the second of the second		
	7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for operating room		
	procedure; or		
	a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6,     a or 0) and any listed ICD 0 CM or ICD 10 BCS procedure codes for machanical.		
	7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for mechanical		
	ventilation; or		
	a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6,     3.8 or 0) and transforming from another health care facility within two days of birth.		
	7, 8, or 9) and transferring from another health care facility within two days of birth		
	<ul> <li>See Pediatric Quality Indicators Appendices:</li> <li>Appendix A – Operating Room Procedure Codes</li> </ul>		
	Appendix A – Operating Room Procedure Codes     Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and		
	Outborn		
	Appendix L – Low Birth Weight Categories		
Denominator	Please see attached excel file in S.2b. for version 6.1 alpha specifications.		
Details	riease see attached excernie in 3.2b. for version 0.1 alpha specifications.		
Exclusions	Exclude cases:		
Exclusions	with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary)		
	diagnosis present on admission†) for sepsis		
	with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary)		
	diagnosis present on admission†) for sepsis or bacteremia		
	with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary)		
	diagnosis present on admission†) for staphylococcal or Gram-negative bacterial		
	infection		
	with birth weight less than 500 grams (Birth Weight Category 1)		
	with length of stay less than 3 days		
	with missing gender (SEX=missing), age (AGE=missing), quarter		
	(DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)		
	† Only for cases that otherwise qualify for the numerator.		
	The state of the other was quality for the numerator.		

	0478 Neonatal Blood Stream Infection Rate (NQI 03)	
Exclusion details	Please see attached excel file in S.2b. for version 6.1 alpha specifications.	
Risk Adjustment	Statistical risk model The predicted value for each case is computed using a hierarchical model (logistic regression with hospital random effect) and covariates for gender, birthweight (in 500g groups), modified CMS DRG, congenital anomolies, transfer in status and Major Diagno Available in attached Excel or csv file at S.2b	
Stratification	Not applicable	
Type Score	Rate/proportion better quality = lower score	
Copyright /	The observed rate is the number of discharge records where the patient experienced the QI adverse event divided by the number of discharge records at risk for the event The expected rate is a comparative rate that incorporates information about a reference population that is not part of the user's input dataset — what rate would be observed if the expected level of care observed in the reference population and estimated with risk adjustment regression models, were applied to the mix of patients with demographic and comorbidity distributions observed in the user's dataset? The expected rate is calculated only for risk-adjusted indicators.  The expected rate is estimated for each person using a generalized estimating equations (GEE) approach to account for correlation at the hospital or provider level. The risk-adjusted rate is a comparative rate that also incorporates information about a reference population that is not part of the input dataset — what rate would be observed if the level of care observed in the user's dataset were applied to a mix of patients with demographics and comorbidities distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user's input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user's dataset if the provider's rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the variance of the estimated rate from the input dataset is large compared with the hospital-to-hospital variance estimated from the reference population. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed rate	
Copyright /	5.1 Identified measures: 1731 : PC-04 Health Care-Associated Bloodstream Infections	
Disclaimer	in Newborns	

## 0478 Neonatal Blood Stream Infection Rate (NQI 03)

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value: Our understanding is that The Joint Commission (TJC) intents to submit "Health Care-Associated Bloodstream Infections in Newborns (PC-04)" under the call for measures. In anticipation of this, AHRQ and TJC have agreed to harmonize our measures to the extent feasible given alternative data sources. (The AHRQ QI is an existing NQF endorsed measure; the TJC measure is a newly submitted measure). There are three specification differences related to data availability in the TJC measure specification. First, hospitals report to TJC the actual birth weight from the medical record (rather than coded birth weight using ICD-9-CM); Second, hospitals report whether the patient has a signed consent form for participation in a clinical trial. Therefore, the TJC specification does not include an inclusion criteria related to gestational age as in the AHRQ QI (rather, actual birthweight is used as an alternative to coded birth weight). The TJC also includes an exclusion for enrollment in a clinical trial. The AHRQ QI contains no such exclusion. Finally, TJC excludes stays of more than 120 days for technical reasons related to the measure reporting period. This rationale does not apply to the AHRQ QI, and therefore the AHRQ QI has no such exclusion.

	0480 PC-05 Exclusive Breast Milk Feeding		
Steward	The Joint Commission		
Description	PC-05 assesses the number of newborns exclusively fed breast milk during the newborn's entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns).		
Туре	Process		
Data Source	Electronic Clinical Data, Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment PC05_ICD_Code_Tables.xlsx		
Level	Facility, Population : National		
Setting	Hospital/Acute Care Facility		
Numerator Statement	Newborns that were fed breast milk only since birth		
Numerator	One data element is used to calculate the numerator:		
Details	1. Exclusive Breast Milk Feeding - Documentation that the newborn was exclusively fed breast milk during the entire hospitalization. Allowable Values: Yes or No/UTD. Cases are eligible for the numerator when allowable value = yes. Updates available at: http://manual.jointcommission.org/releases/TJC2016A5B2/		
Denominator Statement	Single term liveborn newborns discharged alive from the hospital with ICD-10-CM Principal Diagnosis Code for single liveborn newborn as defined in Appendix A, Table 11.20.1 available at: http://manual.jointcommission.org/releases/TJC2016A/Single term liveborn newborns discharged alive from the hospital with ICD-10-CM Principal Diagnosis Code for single liveborn newborn as defined in Appendix A, Table 11.20.1 available at: http://manual.jointcommission.org/releases/TJC2015B2/		
Denominator Details	Ten data elements are used to calculate the denominator:  1. Admission Date – The month, day and year of admission to acute inpatient care.  2. Admission to NICU - Documentation that the newborn was admitted to the Neonatal Intensive Care Unit (NICU) at this hospital any time during the hospitalization. Allowable values: Yes or No/UTD		
	3. Birthdate - The month, day and year the patient was born.  4. Discharge Date - The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.  5. Discharge Disposition - The place or setting to which the patient was discharged.  6. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.		

## 0480 PC-05 Exclusive Breast Milk Feeding

- 7. ICD-10-PCS Other Procedure Codes The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
- 8. ICD-10-CM Principal Diagnosis Code The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
- 9. ICD-10-CM Principal Procedure Code The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.
- 10. Term Newborn Documentation that the newborn was at term or >= 37 completed weeks of gestation at the time of birth. Allowable values: Yes or No/UTD Updates available at: http://manual.jointcommission.org/releases/TJC2016A/Eleven data elements are used to calculate the denominator:
- 1. Admission Date The month, day and year of admission to acute inpatient care.
- 2. Admission to NICU Documentation that the newborn was admitted to the Neonatal Intensive Care Unit (NICU) at this hospital any time during the hospitalization. Allowable values: Yes or No/UTD
- 3. Birthdate The month, day and year the patient was born.
- 4. Clinical Trial Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients who are newborns were being studied. Allowable values: Yes or No/UTD
- 5. Discharge Date The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
- 6. Discharge Disposition The place or setting to which the patient was discharged.
- 7. ICD-10-CM Other Diagnosis Codes The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
- 8. ICD-10-PCS Other Procedure Codes The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
- 9. ICD-10-CM Principal Diagnosis Code The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
- 10. ICD-10-CM Principal Procedure Code The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.
- 11. Term Newborn Documentation that the newborn was at term or >= 37

	0480 PC-05 Exclusive Breast Milk Feeding		
	completed weeks of gestation at the time of birth. Allowable values: Yes or No/UTD		
	Updates available at: http://manual.jointcommission.org/releases/TJC2015B2/		
Exclusions	Admitted to the Neonatal Intensive Care Unit (NICU) at this hospital during the		
	hospitalization		
	• ICD-10-CM Other Diagnosis Codes for galactosemia as defined in Appendix A, Table		
	11.21		
	• ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for		
	parenteral infusion as defined in Appendix A, Table 11.22		
	Experienced death		
	• Length of Stay >120 days		
	• Enrolled in clinical trials		
	Patients transferred to another hospital		
	Patients who are not term or with < 37 weeks gestation completed		
Exclusion details  • The data element Admission to NICU is used to determine if the patient was admitted to the NICU.			
actans	Patients with ICD-10-CM Other Diagnosis Codes for galactosemia are excluded.		
	Patients with ICD-10-PCS Principal Procedure Code or ICD-10-PMS Other Procedure		
Codes for parenteral infusion are excluded.			
<ul> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission</li> <li>Date. If the LOS is greater than 120 days the patient is excluded.</li> </ul>			
	• The data element Discharge Disposition is used to determine if the patient was		
	transferred to another hospital or expired.		
	• The data element Term Newborn is used to determine if the patient was not to		
	or < 37 completed weeks of gestation. • The data element Admission to NICU is use		
	to determine if the patient was admitted to the NICU.		
	• Patients with ICD-10-CM Other Diagnosis Codes for galactosemia are excluded.		
	◆ Patients with ICD-10-PCS Principal Procedure Code or ICD-10-PMS Other Procedure		
	Codes for parenteral infusion are excluded.		
	◆ Length of stay (LOS) in days is equal to the Discharge Date minus the Admission		
	Date. If the LOS is greater than 120 days the patient is excluded.		
	◆ Patients are excluded if "Yes" is selected for Clinical Trial.		
• The data element Discharge Disposition is used to determine if the patient wa			
	transferred to another hospital or expired.		
	<ul> <li>The data element Term Newborn is used to determine if the patient was not ter or &lt; 37 completed weeks of gestation.</li> </ul>		
Risk	No risk adjustment or risk stratification		
Adjustment	Not Applicable		
Stratification	Not Applicable		
Type Score	Rate/proportion better quality = higher score		
Algorithm	1. Start processing. Run cases that are included in the PC-Newborn Initial Patient Newborns with Breast Feeding and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.		

## 0480 PC-05 Exclusive Breast Milk Feeding

- 2. Check Discharge Disposition
- a. If Discharge Status equals 4, 6, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- b. If Discharge Status equals 1, 2, 3, 5, 7, 8, continue processing and proceed to Term Newborn.
- 3. Check Term Newborn
- a. If Term Newborn is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Term Newborn equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Term Newborn equals No, continue processing and proceed to Admission to NICU.
- 4. Check Admission to NICU
- a. If Admission to NICU is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Admission to NICU equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Admission to NICU equals No, continue processing and proceed to Exclusive Breast Milk Feeding.
- 5. Check Exclusive Breast Milk Feeding
- <u>a. If Exclusive Breast Milk Feeding is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</u>
- b. If Exclusive Breast Milk Feeding equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- c. If Exclusive Breast Milk Feeding equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

Category Assignment of D and will be in the Measure Population. Stop processing.

Available at measure-specific web page URL identified in S.11. Start processing. Run

cases that are included in the PC-Newborn Initial Patient Newborns with Breast

Feeding and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.

- 2. Check Discharge Disposition
- a. If Discharge Status equals 4, 6, the case will proceed to a Measure Category
  Assignment of B and will not be in the measure population. Stop processing.
  b. If Discharge Status equals 1, 2, 3, 5, 7, 8, continue processing and proceed to
  Clinical Trial.
- 3. Check Clinical Trial
- a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Clinical Trial equals No, continue processing and proceed to Term Newborn.
- 4. Check Term Newborn
- a. If Term Newborn is missing, the case will proceed to a Measure Category

	0480 PC-05 Exclusive Breast Milk Feeding	
	Assignment of X and will be rejected. Stop processing.	
	b. If Term Newborn equals Yes, the case will proceed to a Measure Category	
	Assignment of B and will not be in the measure population. Stop processing.	
	c. If Term Newborn equals No, continue processing and proceed to Admission to	
	NICU.	
	5. Check Admission to NICU	
	a. If Admission to NICU is missing, the case will proceed to a Measure Category	
	Assignment of X and will be rejected. Stop processing.	
	b. If Admission to NICU equals Yes, the case will proceed to a Measure Category	
	Assignment of B and will not be in the measure population. Stop processing.	
	c. If Admission to NICU equals No, continue processing and proceed to Exclusive	
	Breast Milk Feeding.	
	6. Check Exclusive Breast Milk Feeding	
	a. If Exclusive Breast Milk Feeding is missing, the case will proceed to a Measure	
	Category Assignment of X and will be rejected. Stop processing.	
	b. If Exclusive Breast Milk Feeding equals Yes, the case will proceed to a Measure	
	Category Assignment of E and will be in the Numerator Population. Stop processing.	
	c. If Exclusive Breast Milk Feeding equals No, the case will proceed to a Measure	
	Category Assignment of D and will be in the Measure Population. Stop processing.	
	Available at measure-specific web page URL identified in S.1	
Copyright /	5.1 Identified measures:	
Disclaimer		
	5a.1 Are specs completely harmonized?	
	5a.2 If not completely harmonized, identify difference, rationale, impact: Not	
	Applicable	
	5b.1 If competing, why superior or rationale for additive value: Not Applicable	

	0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity.	
Steward	Vermont Oxford Network	
Description	Proportion of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for screening for retinopathy of prematurity (ROP) by the American Academy of Pediatrics (AAP) and who received a retinal examination for ROP prior to discharge.	
Туре	Process	
Data Source	Electronic Clinical Data: Registry Vermont Oxford Network Database  No data collection instrument provided Attachment 0483_ICD.xlsx	
Level	Facility	
Setting	Hospital/Acute Care Facility	
Numerator Statement	Number of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for ROP screening by the AAP and who received a retinal exam for ROP prior to discharge	
Numerator Details	Number of infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age who were in the reporting hospital at the postnatal age recommended for ROP screening by the AAP and who received a retinal exam for ROP prior to discharge	
Denominator	All eligible infants born from 22 weeks, 0 days to 29 weeks, 6 days gestational age	
Statement	who were in the reporting hospital at the postnatal age recommended for ROP screening by the AAP	
Denominator Details	Any infant who is born at the reporting hospital and whose gestational age at birth is from 22 weeks, 0 days to 29 weeks, 6 days should be included if they are in the reporting hospital at the postnatal age recommended for ROP screening by the AAP. Any outborn infant who is admitted to any location in the reporting hospital within 28 days of birth, without first having gone home, and whose gestational age is from 22 weeks, 0 days to 29 weeks, 6 days should be included if they are in the reporting hospital at the postnatal age recommended for ROP screening by the AAP.	
Exclusions	<ol> <li>Infants outside the gestational age range of 22 to 29 weeks</li> <li>Outborn infants admitted to the reporting hospital more than 28 days after birth</li> <li>Outborn infants who have been home prior to admission</li> <li>Infants who die in the delivery room or initial resuscitation area prior to admission to the neonatal intensive care unit</li> <li>Infants not in the reporting hospital at the postnatal age recommended for ROP screening by the AAP</li> </ol>	
Exclusion details	See S.10. above.	
Risk Adjustment	Stratification by risk category/subgroup N/A	
Stratification	Reports are stratified by gestational age, birth location and birth weight category.	
Type Score	Rate/proportion better quality = higher score	
Algorithm	1. Identify the population of eligible infants: all infants whose gestational age at birth	

# 0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity.

is from 22 weeks, 0 days, to 29 weeks, 6 days, who are born at or admitted to the hospital within 28 days of birth without having been discharged home and who are still hospitalized at the postnatal age at which the first retinal screening exam is recommended by the AAP guidelines.

- a. Determine the infant's postnatal age at discharge. This is calculated in days as date of discharge minus date of admission +1. Divide by 7 to determine the postnatal age at discharge in weeks.
- b. Compare each infant's postnatal age at discharge to the appropriate row in the following table adapted from: American Academy of Pediatrics, Section on Ophthalmology, American Academy of Ophthalmology, American Association for Pediatric Ophthalmology and Strabismus. Screening examination of premature infants for retinopathy of prematurity. Pediatrics. 2013;131:189.

Timing of First Eye Examination Based on Gestational Age at Birth

Gestational age at birth (completed weeks)	Postnatal Age (weeks) at initial ROP screening exam
22	9
23	8
24	7
25	6
26	5
27	4
28	4
29	4

- c. If the infant's postnatal age at discharge is greater than or equal to the postnatal age for initial ROP screening from the table, the infant is classified as "still hospitalized at the time of recommended initial ROP screening".
- 2. Among the population of eligible infants:
  - a. Count the number of infants in the population of eligible infants. This number is the denominator for the measure: DENOM.
  - b. Count the number of infants who had a retinal examination prior to discharge. This number is the numerator for the measure: NUM.
  - c. The measure is calculated as:

#### **NUM / DENOM**

This measure represents the proportion of infants 22 to 29 weeks gestation who were hospitalized at the age when ROP screening is recommended who were screened prior to discharge.

	0483 Proportion of infants 22 to 29 weeks gestation screened for retinopathy of prematurity.
	d. To stratify by gestational age, limit the counts and calculation to
	infants in the gestational age for the range 22-29 weeks. No diagram provided
Copyright /	5.1 Identified measures:
Disclaimer	
	5a.1 Are specs completely harmonized?
	5a.2 If not completely harmonized, identify difference, rationale, impact:
	5b.1 If competing, why superior or rationale for additive value: N/A

	0716 Unexpected Complications in Term Newborns
Description	This is a hospital level performance score reported as the percent of infants with Unexpected Newborn Complications among full term newborns with no preexisting conditions, typically calculated per year.
Туре	Outcome
Data Source	Administrative claims This measure utilizes a linked dataset obtained from two separate data sources, patient discharge data and birth certificate files. Patient Discharge Data: Obtained from the Office of Statewide Planning and Discharge (OSHPD). This dataset does not include data on births from military/naval hospitals as they do not submit data to OSHPD. Linked to: Birth Certificate Files: Obtained from the Center for Health Statistics
	Attachment Unexpected_Newborn_Complications_Appendices-
	635908840574237076.xlsx
Level	Facility, Integrated Delivery System, Population : Regional, Population : State
Setting	Hospital/Acute Care Facility
Numerator	Numerator: The numerator is divided into two categories: Severe complications and
Statement	moderate complications.  Severe complications include neonatal death, transfer to another hospital for higher level of care, extremely low Apgar Scores (=3 at either 5 or 10 minutes of life), severe birth injuries such as intracranial hemorrhage or nerve injury, neurologic damage, severe respiratory and infectious complications such as sepsis. Parents of such babies may often worry about short or long term infant outcomes.  Moderate complications include diagnoses or procedures that raise concern but at a lower level than the list for severe (e.g. use of CPAP or bone fracture). For inclusion in the numerator, most require an infant length of stay that exceeds that of the mother, validating that these are indeed significant complications. Examples include less severe respiratory complications (e.g. Transient Tachypnea of the Newborn), or infections with a longer length of stay not including sepsis. As a "safety net" to capture cases who were under-coded, the numerator also includes infants who have a prolonged length of stay of over 5 days to capture the "seemingly normal" infants with neither any form of jaundice nor a social reason for staying in the hospital (e.g. family disruption or adoption).
Numerator Details	In the full term neonatal population that excluded premature infants, low birth weight babies, infants with congenital malformations, fetuses with pre-existing conditions such as IUGR and babies exposed to maternal drug use, babies were selected for inclusion in the numerator in a hierarchical manner as follows:  PART A: Severe Complications: Identify and include the following in a hierarchical

#### manner:

- a) Neonatal Deaths (Use patient discharge diagnosis data, specifically the disposition code for death)
- b) Neonatal Transfers (Use patient discharge diagnosis data, specifically the disposition code for transfer to a higher level of care)
- c) Low Apgar Scores at 5 minutes or 10 minutes of <=3 out of a possible 10 (Use Birth certificate to obtain Apgar scores)
- d) Severe Morbidities: (Use patient discharge diagnosis data, examining both primary and other diagnosis and procedure fields for ICD-9 Codes defining an array of specific severe complications. Please refer to Appendix 3, Groups 3A through 3I as the codes are too numerous to include here)
- e) Sepsis with a neonatal Length of Stay that exceeds 4 days (Use patient discharge diagnosis data, examining both primary and other diagnosis fields for the specific ICD-9 code defining sepsis. Note that neonatal stay is defined as the date of discharge minus the date of birth).

The neonates identified in Part A make up the "Severe Complications" component of the numerator.

In the remaining infants (those without severe morbidities), identify and include the following

PART B: Moderate Complications: Identify and include the following in a hierarchical manner:

- a) Moderate complications not requiring a specific length of stay: Identify babies with moderate complications that do not require a specific length of stay for inclusion (Use Patient discharge Diagnosis data, examining both primary and other diagnosis and procedure fields for ICD-9 codes identifying specific moderate complications (see Appendix 4, Groups A though C as the codes are too numerous to include here) b) Specific Prolonged neonatal length of Stay stratified by method of delivery. Among babies who were delivered vaginally, identify those who have a length of stay of over 2 days. Among babies delivered via Cesarean Section, identify those who have a length of stay of over 4 days. (Use V-code 30.00 to identify vaginal births, and V30.01 to identify Cesarean births. V-codes are found in patient discharge data. Neonatal length of stay is defined as the date of discharge minus the date of birth).
- c) Moderate complications requiring a prolonged length of stay: Among the infants identified in step b, identify those with moderate complications (Use Patient discharge Diagnosis data, examining both primary and other diagnosis and procedure fields for ICD-9 codes identifying specific moderate complications that require a prolonged length of stay for inclusion in the numerator. See Appendix 4, Groups D through H)
- d) Prolonged neonatal Length of Stay that Exceeds 5 days: In the remaining population, identify babies who have a prolonged length of stay that exceeds 5 days. (Use Patient Discharge Diagnosis Data to determine Length of Stay. Neonatal length

	0716 Unexpected Complications in Term Newborns
	of stay is defined as the date of discharge minus the date of birth).
	e) Exclude infants with jaundice or social indications: Among babies identified as
	having a length of stay that exceeds 5 days, exclude those who have jaundice or are in hospital for social indications such as adoption or foster care. (See Appendix 5 on our web-page for jaundice and social exclusion codes)
Denominator	The denominator is comprised of singleton, live born babies who are at least 37.0
Statement	weeks of gestation, and over 2500g in birth weight. The denominator excludes most
	serious fetal conditions that are "preexisting" (present before labor), including
	prematurity, multiple gestations, poor fetal growth, congenital malformations,
	genetic disorders, other specified fetal and maternal conditions and infants exposed
	to maternal drug use in-utero. The final denominator population consists of babies
	who are expected to do well following labor and delivery and go home routinely with
	their mothers.
Denominator	Step 1: Identify and include singleton, inborn, live births (Use Patient discharge
Details	Diagnosis data, specifically diagnosis Codes V30.00 or V30.01).
	Step 2: Identify and include babies with birth weight >= 2500g. (Use birth certificate
	or Patient Discharge data).
	Step 3: Identify and include full term babies, >=37 weeks gestation (Use birth
	certificate variable called best obstetric estimate of gestational age).
	Step 4: In less than 1% of cases, the best obstetric estimate of gestation age is
	missing. In these cases, use LMP-based gestational age to identify full term infants.
	(Use birth certificate or Patient Discharge data).
	Step 5: If both sources of gestational age are missing, include only infants who are over 3000g, as they are more likely to be full term.
	Step 6: In the singleton, full term, population obtained in steps 1 through 5, identify
	and exclude babies with all congenital malformations and genetic disorders (See
	Appendix 2, Group A for the list of congenital malformation and genetic disorder exclusions)
	Step 7: After congenital malformations and genetic disorders are excluded, further
	exclude babies with fetal conditions such as IUGR (see Appendix 2, Group B for the list
	of preexisting fetal conditions to be excluded)  Stop 8: After babies with congenital malformations, genetic disorders and fetal
	Step 8: After babies with congenital malformations, genetic disorders and fetal conditions are excluded, further exclude infants who were exposed to maternal drug
	use in-utero. (see Appendix 2, Group C for the list of maternal drug use exposures to
	be excluded)  **Note: List of ICD 0 codes with individual descriptors is available in the Appendices
	**Note: List of ICD-9 codes with individual descriptors is available in the Appendices on our web-page
Exclusions	a) Babies not born in hospitals are excluded as this is a hospital quality performance
LXCIUSIONS	measure
	b) Babies who are part of multiple gestation pregnancies are excluded.
	c) Premature infants (babies born before 37 weeks gestational age) are excluded
	C) Fremature illiants (babies both before 37 weeks gestational age) are excluded

	0716 Unexpected Complications in Term Newborns
	d) Low birth weight babies (<=2500g) are excluded
	e) Babies with congenital malformations and genetic diseases are excluded
	f) Babies with pre-existing fetal conditions such as IUGR are excluded
	g) Babies who were exposed to maternal drug use in-utero are excluded
Exclusion	a)Babies not born in hospitals are excluded as this is a hospital quality performance
details	measure (Exclude all other live birth codes other than V30.00 and V30.01)
	b)Babies who are part of multiple gestation pregnancies are excluded. (Exclude all
	other live birth codes other than V30.00 and V30.01)
	c)Premature infants (babies born before 37 weeks gestational age) are excluded (use
	best obstetric estimate of gestational age found in the birth certificate to exclude all
	infants born before 37 weeks. If best obstetric of gestational age is missing, use the
	LMP gestational age variable instead to identify infants under 37 weeks)
	d)Low birth weight babies (<=2500g) are excluded (Use birth certificate birth weight
	variable to identify infants under 2500g)
	e)Babies with congenital malformations and genetic diseases are excluded (Use ICD-9
	codes listed in Appendix 2, Group A to exclude infants with these conditions)
	f)Babies with pre-existing fetal conditions such as IUGR are excluded (Use ICD-9 codes
	listed in Appendix 2, Group B to exclude infants with these conditions)
	g)Babies who were exposed to maternal drug use in-utero are excluded (Use ICD-9
	codes listed in Appendix 2, Group C to exclude infants with these conditions)
Risk	No risk adjustment or risk stratification
Adjustment	None
Stratification	Not applicable
Type Score	Rate/proportion better quality = lower score
Algorithm	STEP 1: Calculate Denominator Inclusions
	a)Identify and include singleton, inborn, live births (Use Patient discharge Diagnosis
	data, specifically diagnosis Codes V30.00 or V30.01 listed in Appendix 1).
	b)Next, identify and include babies with birth weight >= 2500g. (Use birth certificate
	or Patient Discharge data).
	c)Next, identify and include full term babies, >=37 weeks gestation (Use birth
	certificate variable called best obstetric estimate of gestational age). In less than 1%
	of cases, the best obstetric estimate of gestation age is missing. In these cases, use
	LMP-based gestational age to identify full term infants. (Use birth certificate or
	Patient Discharge data).
	d)If both sources of gestational age are missing, include only infants who are over
	3000g, as they are more likely to be full term. (Use the birth certificate variable for
	birth weight).
	STEP 2: Calculate Denominator Exclusions
	a)In the singleton, full term, population of neonates obtained in Step 1, identify and
	exclude babies with all congenital malformations and genetic disorders ( Use codes
	listed in Appendix 2, Group A to exclude infants)

b)After congenital malformations and genetic disorders are excluded, further exclude babies with fetal conditions such as IUGR (Use codes listed in Appendix 2, Group B to exclude infants)

c)After babies with congenital malformations, genetic disorders and fetal conditions are excluded, further exclude infants who were exposed to maternal drug use inutero. (Use codes listed in Appendix 2, Group C to exclude infants).

d)This is the measure's final denominator population

Step 3: Numerator Inclusions: PART A: SEVERE COMPLICATIONS

a)Identify and include Neonatal Deaths (Using patient discharge diagnosis data, specifically the disposition code for death)

b)Identify and include neonatal transfers (Using patient discharge diagnosis data, specifically the disposition code for transfer to a higher level of care)

c)Identify and include babies with "Apgar at 5 minutes" OR "Apgar at 10 minutes" scores of less than 4 (Use Birth certificate or medical record to obtain Apgar scores) d)Identify and include babies with Severe Morbidities (Use patient discharge diagnosis data, examining both primary and other diagnosis and procedure fields for specific ICD-9 Codes defining an array of specific severe complications. Please refer to Appendix 3, Groups 3A through 3I as the codes are too numerous to include here) e)Identify and include babies with a Sepsis code and a length of stay that exceeds 4 days (Use patient discharge diagnosis data, examining both primary and other diagnosis fields for the specific ICD-9 code defining sepsis but also requiring a neonatal length of stay of over 4 days. Note that neonatal stay is defined as the date of discharge minus the date of birth).

The neonates identified in Step 3 comprise the "Severe Complications" component of the numerator.

Step 4: Numerator Inclusions: PART B: MODERATE COMPLICATIONS
In the remaining infants (those without severe morbidities), identify and include the following

a)Identify babies with moderate complications that do not require a specific length of stay for inclusion (Use Patient discharge Diagnosis data, examining both primary and other diagnosis and procedure fields for specific ICD-9 codes identifying specific moderate complications (see Appendix 4, Groups A though C)

b)Identify babies with a specified prolonged length of stay stratified by method of delivery. In the population of babies who were delivered vaginally, identify those who have a length of stay of over 2 days. Among babies delivered via Cesarean Section, identify those who have a length of stay of over 4 days.

c)Among babies identified as having a prolonged length of stay (stratified by method of delivery), identify and include those who have moderate complications (Use Patient discharge Diagnosis data, examining both primary and other diagnosis and procedure fields for specific ICD-9 codes identifying specific moderate complications. See Appendix 4, Groups D through H)

d)In the remaining population, identify babies who have a prolonged length of stay that exceeds 5 days. Use Patient Discharge Diagnosis Data to determine Length of Stay

e)Among babies identified as having a length of stay that exceeds 5 days, exclude those who have jaundice or are in hospital for social indications such as adoption or foster care (See Appendix 5 for jaundice and social exclusion codes)

Step 5: Calculation of Unexpected Complications in Term Newborns measure: Unexpected Newborn Complications (Total): Rate per 100 live births.

(Severe Complications + Moderate Complications/ Final Denominator) x100 Available in attached appendix at A.1

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5.1 Identified measures:

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: There is no other currently endorsed measure in this topic area. A formerly endorsed NQF measure (NQF # 0474 Birth Trauma -Injury to the Neonate) would have been considered a "competing measure" as it conceptually addressed the same measure focus and target population. It suffered from over coding issues with several ICD codes dominating the measure that were ambiguous (e.g. "Other birth injuries NOS"). This remains an issue for ICD-10. For that and other reasons, that measure was "unendorsed". Furthermore that measure was focused only on physical birth injuries while our measure identifies a much broader range of neonatal morbidities that are a consequence of labor and delivery.

5b.1 If competing, why superior or rationale for additive value: NQF 0474 provides a very limited window into term morbidities from the single perspective of birth trauma. There are many other morbidities in term infants that are much more common and important to quantify as several of them are severe and can have long lasting implications well into childhood and beyond. We feel our measure is superior to NQF 0474 for the following reasons:

- We examine a much broader range of adverse events including deaths, transfers, low Apgar scores and a wide range of severe and moderate conditions. Including hypoxic encephalopathy, very low Apgar scores, and respiratory distress in term infants.
- After consulting neonatologists, pediatricians and obstetricians about the severity of certain conditions and how to quantify and group conditions appropriately, we are confident that our measure differentiates between severe and moderate morbidity.
- Our measure factors in neonatal length of stay, which is an important indicator in assessing whether an infant is truly severely ill or not. For example, an infant may have a diagnosis code for neonatal sepsis (a very serious newborn complication) but if

the neonatal LOS was only 2 days (and no death or transfer) se We also include method of delivery and its impact on length of stay, as infants delivered via Cesarean section generally stay in hospital for four days and infants born vaginally stay for two days or less. We exclude conditions like jaundice and social factors that cause infants to have longer neonatal lengths of stay.

- Our exclusions ensure that our denominator (target) population truly does consist of healthy term newborns by excluding preterm infants, low birth weight babies, congenital malformations, babies subjected to maternal drug use and other preexisting conditions.
- Our measure allows hospitals to drill down into sub-measures of morbidity such as respiratory complications, neurological complications and infections to determine what is driving their unexpected newborn complication rate.
- •The larger incidence of conditions in our measure compared to the NQF birth injury measure allows for much better statistical analysis and discrimination. Furthermore, our measure is currently used to evaluate over 1 million births in multiple states and hospitals across the US (corresponding to approximately 25% of all US births).

	1382 Percentage of low birthweight births
Status	Submitted
Steward	Centers for Disease Control and Prevention
Description	The percentage of births with birthweight <2,500 grams
Туре	Outcome
Data Source	Patient Reported Data/Survey National Center for Health Statistics, Natality Detail
	file. These publicly available data files contain individual record data for the 4.2
	million births in the United States each year. Data are from birth certificates.  URL URL
Level	Population : County or City, Population : National, Population : Regional
Setting	Hospital/Acute Care Facility, Other United States, states, counties
Numerator Statement	The number of babies born weighing <2,500 grams at birth in the study population
Numerator	Data are directly available from public-use data files of national birth certificate data
Details	produced by the National Center for Health Statistics.
Denominator	All births in the study population
Statement	
Denominator	Data are directly available from public-use data files of national birth certificate data
Details	produced by the National Center for Health Statistics.
Exclusions	None
Exclusion	None
details	
Risk	No risk adjustment or risk stratification
Adjustment	N/A
Stratification	- Stratify the measure by single vs. multiple births
	- Stratify the measure by birthweight of less thant 1,500 grams (i.e. very low
	birthweight) vs. 1,500-2,499 grams (i.e. moderately low birthweight).
Type Score	Other Percentage better quality = lower score
Algorithm	The number of births weighing <2,500 grams/Total births at any birthweight * 100
Copyright / Disclaimer	5.1 Identified measures:
	5a.1 Are specs completely harmonized?
	5a.2 If not completely harmonized, identify difference, rationale, impact:
	5b.1 If competing, why superior or rationale for additive value:

	1517 Prenatal & Postpartum Care (PPC)
Status	Submitted
Steward	National Committee for Quality Assurance
Description	The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care:  Rate 1: Timeliness of Prenatal Care. The percentage of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization.  Rate 2: Postpartum Care. The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery.
Туре	Process
Data Source	Administrative claims, Electronic Clinical Data, Paper Medical Records This measure is based on administrative claims and medical record documentation collected in the course of providing care to health plan members. NCQA collects the Healthcare Effectiveness Data and Information Set (HEDIS) data for this measure directly from Health Management Organizations and Preferred Provider Organizations via NCQA's online data submission system.  No data collection instrument provided Attachment 1517_PPC_Value_Sets.xlsx
Level	Health Plan, Integrated Delivery System
Setting	Ambulatory Care : Clinician Office/Clinic
Numerator Statement	This measure assesses whether pregnant women had timely prenatal and postpartum care visits. It has two rates, one assessing the timeliness of prenatal visits, and one assessing the timeliness of postpartum visits.
Numerator Details	Administrative Specifications Timeliness of Prenatal Care A prenatal visit in the first trimester or within 42 days of enrollment, depending on the date of enrollment in the organization and the gaps in enrollment during the pregnancy. Include only visits that occur while the member was enrolled. Follow the steps below to identify the numerator. Step 1: Determine enrollment status during the first trimester. For all women in the eligible population, identify those who were enrolled on or before 280 days prior to delivery (or estimated date of delivery [EDD]). For these women, proceed to step 2. For women not enrolled on or before 280 days prior to delivery (or EDD), who were therefore pregnant at the time of enrollment, proceed to step 3. Step 2: Determine continuous enrollment for the first trimester. Identify women from step 1 who were continuously enrolled during the first trimester (176–280 days prior to delivery [or EDD]), with no gaps in enrollment. For these women, determine numerator compliance using the decision rules for Identifying Prenatal Care For Women Continuously Enrolled During the First Trimester. For women who were not continuously enrolled during the first trimester (e.g., had a gap between 176 and 280 days before delivery), proceed to step 3.

Step 3: Determine the start date of the last enrollment segment (i.e., the enrollment segment during the pregnancy with the start date that is closest to the delivery date). For women whose last enrollment started on or between 219 and 279 days before delivery, proceed to step 4.

For women whose last enrollment started less than 219 days before delivery, proceed to step 5.

Step 4: Determine numerator compliance. If the last enrollment segment started on or between 219 and 279 days before delivery, determine numerator compliance using the instructions for Identifying Prenatal Care for Women Not Continuously Enrolled During the First Trimester and find a visit between the last enrollment start date and 176 days before delivery.

Step 5: Determine numerator compliance. If the last enrollment segment started less than 219 days before delivery (i.e., between 219 days before delivery and the day of delivery), determine numerator compliance using the instructions for Identifying Prenatal Care for Women Not Continuously Enrolled During the First Trimester and find a visit within 42 days after enrollment.

Identifying Prenatal Care for Women Continuously Enrolled During the First Trimester Decision Rule 1

Either of the following during the first trimester, where the practitioner type is an OB/GYN or other prenatal care practitioner or PCP meets criteria:

- A bundled service (Prenatal Bundled Services Value Set) where the organization can identify the date when prenatal care was initiated (because bundled service codes are used on the date of delivery, these codes may be used only if the claim form indicates when prenatal care was initiated).
- A visit for prenatal care (Stand Alone Prenatal Visits Value Set).

### Decision Rule 2

Any of the following during the first trimester, where the practitioner type for the prenatal visit is an OB/GYN or other prenatal care practitioner, meet criteria:

- A prenatal visit (Prenatal Visits Value Set) with an obstetric panel (Obstetric Panel Value Set).
- A prenatal visit (Prenatal Visits Value Set) with an ultrasound (echocardiography) of the pregnant uterus (Prenatal Ultrasound Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set).
- A prenatal visit (Prenatal Visits Value Set) with all of the following:
- Toxoplasma (Toxoplasma Antibody Value Set).
- Rubella (Rubella Antibody Value Set).
- Cytomegalovirus (Cytomegalovirus Antibody Value Set).
- Herpes simplex (Herpes Simplex Antibody Value Set).
- A prenatal visit (Prenatal Visits Value Set) with rubella (Rubella Antibody Value Set) and ABO (ABO Value Set).

- A prenatal visit (Prenatal Visits Value Set) with rubella (Rubella Antibody Value Set) and Rh (Rh Value Set).
- A prenatal visit (Prenatal Visits Value Set) with rubella (Rubella Antibody Value Set) and ABO/Rh (ABO and Rh Value Set).

**Decision Rule 3** 

Any of the following during the first trimester, where the practitioner type is a PCP, meet criteria:

- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and an obstetric panel (Obstetric Panel Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and an ultrasound (echocardiography) of the pregnant uterus (Prenatal Ultrasound Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and all of the following:
- Toxoplasma (Toxoplasma Antibody Value Set).
- Rubella (Rubella Antibody Value Set).
- Cytomegalovirus (Cytomegalovirus Antibody Value Set).
- Herpes simplex (Herpes Simplex Antibody Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and rubella (Rubella Antibody Value Set) and ABO (ABO Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and rubella (Rubella Antibody Value Set) and Rh (Rh Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and rubella (Rubella Antibody Value Set) and ABO/Rh (ABO and Rh Value Set).
- A prenatal visit (Prenatal Visits Value Set) with any internal organization code for LMP or EDD with an obstetrical history.
- A prenatal visit (Prenatal Visits Value Set) with any internal organization code for LMP or EDD with risk assessment and counseling/education.

Note: For Decision Rule 3 criteria that require a prenatal visit code (Prenatal Visits Value Set) and a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set), codes must be on the same claim.

Identifying Prenatal Care for Women Not Continuously Enrolled During the First Trimester

Any of the following, where the practitioner type is an OB/GYN or other prenatal care practitioner or PCP, meet criteria:

• A bundled service (Prenatal Bundled Services Value Set) where the organization can identify the date when prenatal care was initiated (because bundled service codes are used on the date of delivery, these codes may be used only if the claim form indicates

when prenatal care was initiated).

- A visit for prenatal care (Stand Alone Prenatal Visits Value Set).
- A prenatal visit (Prenatal Visits Value Set) with an ultrasound (echocardiography) of the pregnant uterus (Prenatal Ultrasound Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a principal pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set).

Note: For criteria that require a prenatal visit code (Prenatal Visits Value Set) and a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set), codes must be on the same claim. Criteria for identifying prenatal care for women who were not continuously enrolled during the first trimester allow more flexibility than criteria for women who were continuously enrolled.

### Postpartum Care

A postpartum visit for a pelvic exam or postpartum care on or between 21 and 56 days after delivery. Any of the following meet criteria:

- A postpartum visit (Postpartum Visits Value Set).
- Cervical cytology (Cervical Cytology Value Set).
- A bundled service (Postpartum Bundled Services Value Set) where the organization can identify the date when postpartum care was rendered (because bundled service codes are used on the date of delivery, not on the date of the postpartum visit, these codes may be used only if the claim form indicates when postpartum care was rendered).

Note: The practitioner requirement only applies to the Hybrid Specification. The organization is not required to identify practitioner type in administrative data. Medical Record Specification

Timeliness of Prenatal Care

A prenatal visit in the first trimester or within 42 days of enrollment, depending on the date of enrollment in the organization and gaps in enrollment during the pregnancy. Include only visits that occurred while the member was enrolled. Prenatal care visit to an OB/GYN or other prenatal care practitioner or PCP. For visits to a PCP, a diagnosis of pregnancy must be present. Documentation in the medical record must include a note indicating the date when the prenatal care visit occurred, and evidence of one of the following.

- A basic physical obstetrical examination that includes auscultation for fetal heart tone, or pelvic exam with obstetric observations, or measurement of fundus height (a standardized prenatal flow sheet may be used).
- Evidence that a prenatal care procedure was performed, such as:
- Screening test in the form of an obstetric panel (must include all of the following: hematocrit, differential WBC count, platelet count, hepatitis B surface antigen, rubella antibody, syphilis test, RBC antibody screen, Rh and ABO blood typing), or
- TORCH antibody panel alone, or

- A rubella antibody test/titer with an Rh incompatibility (ABO/Rh) blood typing, or
- Echography of a pregnant uterus.
- Documentation of LMP or EDD in conjunction with either of the following.
- Prenatal risk assessment and counseling/education.
- Complete obstetrical history.

Note: For women whose last enrollment segment was after 219 days prior to delivery (i.e., between 219 days prior to delivery and the day of delivery) and women who had a gap during the first trimester, count documentation of a visit to an OB/GYN, family practitioner or other PCP with a principal diagnosis of pregnancy.

#### Postpartum Care

A postpartum visit for a pelvic exam or postpartum care on or between 21 and 56 days after delivery, as documented through either administrative data or medical record review.

Postpartum visit to an OB/GYN practitioner or midwife, family practitioner or other PCP on or between 21 and 56 days after delivery. Documentation in the medical record must include a note indicating the date when a postpartum visit occurred and one of the following.

- Pelvic exam.
- Evaluation of weight, BP, breasts and abdomen.
- Notation of "breastfeeding" is acceptable for the "evaluation of breasts" component.
- Notation of postpartum care, including, but not limited to:
- Notation of "postpartum care," "PP care," "PP check," "6-week check."
- A preprinted "Postpartum Care" form in which information was documented during the visit.

#### For both rates:

- Services that occur over multiple visits count toward this measure if all services are within the time frame established in the measure. Ultrasound and lab results alone are not considered a visit; they must be linked to an office visit with an appropriate practitioner in order to count for this measure.
- NCQA defines a PCP and OB/GYN and other prenatal practitioners as including:
- Physicians certified as obstetricians or gynecologists by the American Medical Specialties Board of Obstetrics or Gynecology or the American Osteopathic Association; or, if not certified, who successfully completed an accredited program of graduate medical or osteopathic education in obstetrics and gynecology.
- Certified nurse midwives and nurse practitioners who deliver prenatal care services in a specialty setting (under the direction of an OB/GYN certified or accredited provider).

## Denominator

The percentage of deliveries of live births between November 6 of the year prior to

	1517 Prenatal & Postpartum Care (PPC)
Statement	the measurement year and November 5 of the measurement year.
Denominator Details	Product Lines: Commercial, Medicaid (report each product line separately).  Continuous enrollment: 43 days prior to delivery through 56 days after delivery.  Allowable gap: No allowable gap during the continuous enrollment period.  Anchor date: Date of delivery.  Benefit: Medical.
	Event/ diagnosis: Delivered a live birth on or between November 6 of the year prior to the measurement year and November 5 of the measurement year. Include women who delivered in any setting.
	Multiple births. Women who had two separate deliveries (different dates of service) between November 6 of the year prior to the measurement year and November 5 of the measurement year count twice. Women who had multiple live births during one pregnancy count once.
	Follow the steps below to identify the eligible population, which is the denominator for both rates.
	Step 1: Identify deliveries. Identify all women with a delivery (Deliveries Value Set) between November 6 of the year prior to the measurement year and November 5 of the measurement year.
	Step 2: Exclude non-live births (Non-live Births Value Set).
	Step 3: Identify continuous enrollment. Determine if enrollment was continuous between 43 days prior to delivery and 56 days after delivery, with no gaps.
Exclusions	Non-live births
Exclusion details	See corresponding Excel document for the Non-live Births Value Set.
Risk	No risk adjustment or risk stratification
Adjustment	N/A
Stratification	N/A
Type Score	Rate/proportion better quality = higher score
Algorithm	Step 1: Calculate the eligible population following the instructions in the denominator details listed in section S.9.  Step 2: Remove the exclusions identified in section S.10.
	Step 3: Calculate the numerator for Rate 1 following the instructions in the numerator details listed in section S.6.
	Step 4: Divide the numerator from Step 3 by the denominator from Step 2 to determine Rate 1.
	Step 5: Calculate the numerator for Rate 2 following the instructions in the numerator details listed in section S.6.
	Step 6: Divide the numerator from Step 5 by the denominator from Step 2 to determine Rate 2. No diagram provided
Copyright / Disclaimer	5.1 Identified measures: 1391 : Frequency of Ongoing Prenatal Care (FPC)

1517 Prenatal & Postpartum Care (PPC)
5a.1 Are specs completely harmonized? Yes
5a.2 If not completely harmonized, identify difference, rationale, impact:
5b.1 If competing, why superior or rationale for additive value:

	1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns
Status	Submitted
Steward	The Joint Commission
Description	This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).
Туре	Outcome
Data Source	Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment PC04_ICD_Code_Tables.xlsx
Level	Facility, Population : National
Setting	Hospital/Acute Care Facility
Numerator Statement	The outcome being measured is: Newborns with septicemia or bacteremia with ICD- 10-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in
Statement	Appendix A, Table 11.10 with a Bloodstream Infection Confirmed OR ICD-10-CM Other Diagnosis Codes for sepsis as defined in Appendix A, Table 11.10.1 with a Bloodstream Infection Confirmed available at: http://manual.jointcommission.org/releases/TJC2016A5B2/ The only national hospital quality measure currently requiring patient-level risk adjustment is the Health Care-Associated Bloodstream Infections in Newborns (PC- 04) outcome measure in the perinatal care measure set.
Numerator Details	Two data elements are used for the observed outcome and to calculate the numerator:  1. Bloodstream Infection Confirmed- Confirmation that a health care-associated bloodstream infection occurred after the first 48 hours after admission.  2. ICD-10-CM Other Diagnosis Codes- The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.  Cases are eligible for the numerator population with ICD-10-CM Other Diagnosis Code for newborn septicemia or bacteremia with the presence of a health care-associated bloodstream infection confirmed OR an ICD-10-CM Other Diagnosis Codes for sepsis with the presence of a health care-associated bloodstream infection confirmed.  Updates available at: https://manual.jointcommission.org/releases/TJC2016A5B2/.
Denominator Statement	The outcome target population being measured is: Liveborn newborns with ICD-10-CM Other Diagnosis Codes for birth weight between 500 and 1499g as defined in Appendix A, Table 11.12, 11.13 or 11.14 OR Birth Weight between 500 and 1499g OR

#### 1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns

ICD-10-CM Other Diagnosis Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15 or 11.16 OR Birth Weight = > 1500g who experienced one or more of the following:

- o Experienced death
- o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18
- o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19
- o Transferred in from another acute care hospital or health care setting within 2 days of birth.

## Denominator Details

<u>Ten data elements are used to identify the target population and to calculate the denominator:</u>

- 1. Admission Date The month, day and year of admission to acute inpatient care.
- 2. Birth Weight- The weight (in grams) of a newborn at the time of delivery.
- 3. Birthdate The month, day and year the patient was born.
- 4. Bloodstream Infection Present on Admission- Documentation in the medical record that the patient had a bloodstream infection present on admission. This includes both patients with positive blood cultures or inconclusive blood cultures when the patient is suspected of having a bloodstream infection or septicemia and is being treated for the condition. Allowable values: Yes or No/UTD
- <u>5. Discharge Date The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.</u>
- 6. Discharge Disposition The place or setting to which the patient was discharged.
- 7. ICD-10-CM Other Diagnosis Codes The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
- 8. ICD-10-PCS Other Procedure Codes The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
- 9. ICD-10-CM Principal Diagnosis Code The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
- 10. ICD-10-PCS Principal Procedure Code The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

<u>Updates available at: https://manual.jointcommission.org/releases/TJC2016A/.Eleven data elements are used to identify the target population and to calculate the denominator:</u>

- 1. Admission Date The month, day and year of admission to acute inpatient care.
- 2. Birth Weight-The weight (in grams) of a newborn at the time of delivery.
- 3. Birthdate The month, day and year the patient was born.

	1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns
	4. Bloodstream Infection Present on Admission- Documentation in the medical record
	that the patient had a bloodstream infection present on admission. This includes both
	patients with positive blood cultures or inconclusive blood cultures when the patient
	is suspected of having a bloodstream infection or septicemia and is being treated for
	the condition. Allowable values: Yes or No/UTD
	5. Clinical Trial - Documentation that during this hospital stay the patient was enrolled
	in a clinical trial in which patients who are newborns were being studied. Allowable
	values: Yes or No/UTD
	6. Discharge Date – The month day and year the patient was discharged from acute
	care, left against medical advice or expired during the stay.
	7. Discharge Disposition - The place or setting to which the patient was discharged.
	8. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases,
	Tenth Revision, Clinical Modification codes associated with the secondary diagnoses
	for this hospitalization.
	9. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases,
	Tenth Revision, Procedure Coding System code that identifies significant procedures
	performed other than the principal procedure during this hospitalization.
	10. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases,
	Tenth Revision, Clinical Modification code associated with the diagnosis established
	after study to be chiefly responsible for occasioning the admission of the patient for
	this hospitalization.
	11. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases,
	Tenth Revision, Procedure Coding System code that identifies the principal procedure
	performed during this hospitalization. The principal procedure is the procedure
	performed for definitive treatment rather than diagnostic or exploratory purposes, or
	which is necessary to take care of a complication.
	Updates available at: https://manual.jointcommission.org/releases/TJC2015B2/.
Exclusions	• ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias as defined in
	Appendix A, Table 11.10.2
	• ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as defined in
	Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other Diagnosis Codes for
	newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a
	Bloodstream Infection Present on Admission
	• ICD-10-CM Other Diagnosis Codes for birth weight < 500g as defined in Appendix A,
	Table 11.20 OR Birth Weight < 500g
	Length of Stay < 2 days     Through in division triple
Evolucion	Enrolled in clinical trials      Patients with ICD 10 CM Principal Diagnosis Code for continuous or hasteromias
Exclusion	<ul> <li>Patients with ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias are excluded.</li> </ul>
details	
	• Patients with ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias with a Bloodstream Infection Present on Admission are excluded.
	a biooustream infection riesent on Aumission are excluded.

Measure Category Assignment of X and will be rejected. Stop processing.

- b. If Bloodstream Infection Present on Admission equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Bloodstream Infection Present on Admission equals No, continue processing and proceed to check ICD-10-CM Other Diagnosis Codes.
- 6. Check ICD-10-CM Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
- b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue processing and proceed to Birth Weight.
- c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 8).
- 7. Recheck ICD-10-CM Other Diagnosis Codes
- <u>a. If at least one of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes.</u>
- b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to Birth Weight.
- 8. Check Birth Weight
- a. If Birth Weight is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Birth Weight equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- c. If Birth Weight is less than 500, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- d. If Birth Weight is between 500 and 1499, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
- <u>e. If Birth Weight is greater than or equal to 1500, continue processing and proceed to ICD-10-PCS Principal or Other Procedure Codes.</u>
- 9. Check ICD-10-PCS Principal or Other Procedure Codes
- a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to recheck ICD-10-PCS Other Diagnosis Codes (Step 13).
- b. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to ICD-10-CM Principal Diagnosis Code.
- 10. Check ICD-10-CM Principal Diagnosis Code
- a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
- <u>b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue processing and proceed to Discharge Disposition.</u>
- 11. Check Discharge Disposition
- a. If Discharge Disposition is missing, the case will proceed to a Measure Category

Assignment of X and will be rejected. Stop processing.

- b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Discharge Disposition equals 6, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
- 12. Recheck ICD-10-CM Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to Bloodstream Infection Confirmed.
- b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step14).
- 13. Recheck ICD-10-CM Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, continue processing and proceed to Bloodstream Infection Confirmed.
- b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- 14. Check Bloodstream Infection Confirmed
- a. If Bloodstream Infection Confirmed is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Bloodstream Infection Confirmed equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- c. If Bloodstream Infection Confirmed equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing. Calculation of adjusted outcome:
- Step 1 -- Identify the measure population through Measure Category Assignments.
  Risk adjusted rate-based measure: Identify the numerator (Measure Category
  Assignment = E) and the denominator (Measure Category Assignment = D) cases using
  the information provided in the Measure Information Form (MIF). Risk adjusted
  continuous variable measure: Identify the number of cases in the measure population
  (Measure Category Assignment = D). At this time, there are no risk adjusted
  continuous outcome measures in any of the national hospital quality measure sets.
  Note: Do not calculate a Predicted Value for a case if it is rejected by front-end edits
  or is
- <u>rejected because one or more measures in the measure set evaluates to a Measure</u> <u>Category Assignment = X.</u>
- Step 2 -- Create risk factors for the measure.
- Using the Risk Model Information File provided by the Joint Commission, identify all applicable EOC record data elements and the associated risk factor values for each of the EOC records identified instep 1. Risk factors include patient demographic and/or clinical factors, which can influence outcomes of care. Some examples of risk factors include age, sex, and comorbidities such as diabetes or a history of hypertension. As an example, Figure 1 lists the data elements required for risk adjustment of generic measure 'ABC'. Using the data for measure 'ABC', the performance measurement system must identify the risk factors at the EOC record-level, and create data subsets

for each participating hospital. Available at measure-specific web page URL identified in S.11. Start processing. Run cases that are included in the PC-Newborn Initial Patient Newborns with BSI and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.

- 2. Calculate Length of Stay. Length of Stay, in days, is equal to the Discharge Date minus the Admission Date.
- 3. Check Length of Stay
- a. If Length of Stay is less than 2 days, the case will proceed to a Measure Category
  Assignment of B and will not be in the measure population. Stop processing.
  b. If Length of Stay is greater than or equal to 2 days, continue processing and proceed to Clinical Trial.
- 4. Check Clinical Trial
- a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Clinical Trial equals No, continue processing and proceed to ICD-10-CM Principal or Other Diagnosis Codes.
- 5. Check ICD-10-CM Principal or Other Diagnosis Codes
- a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to ICD-10-CM Other Diagnosis Codes
- 1. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 7).
- 2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to Bloodstream Infection Present on Admission.
- b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table
- 11.10, continue processing and proceed to Bloodstream Infection Present on Admission.
- 6. Check Bloodstream Infection Present on Admission
- a. If Bloodstream Infection Present on Admission is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Bloodstream Infection Present on Admission equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Bloodstream Infection Present on Admission equals No, continue processing and proceed to check ICD-10-CM Other Diagnosis Codes.
- 7. Check ICD-10-CM Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).

b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue processing and proceed to Birth Weight.

c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 8).

8. Recheck ICD-10-CM Other Diagnosis Codes

a. If at least one of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes. b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to Birth Weight.

9. Check Birth Weight

a. If Birth Weight is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If Birth Weight equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

c. If Birth Weight is less than 500, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing. d. If Birth Weight is between 500 and 1499, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).

e. If Birth Weight is greater than or equal to 1500, continue processing and proceed to ICD-10-PCS Principal or Other Procedure Codes.

10. Check ICD-10-PCS Principal or Other Procedure Codes

a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to recheck ICD-10-PCS Other Diagnosis Codes (Step 13).

b. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to ICD-10-CM Principal Diagnosis Code.

11. Check ICD-10-CM Principal Diagnosis Code

a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).

b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue processing and proceed to Discharge Disposition.

12. Check Discharge Disposition

a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing. c. If Discharge Disposition equals 6, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).

13. Recheck ICD-10-CM Other Diagnosis Codes

a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to Bloodstream Infection Confirmed.

b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step14).

14. Recheck ICD-10-CM Other Diagnosis Codes

a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, continue processing and proceed to Bloodstream Infection Confirmed.

b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing. 15. Check Bloodstream Infection Confirmed

a. If Bloodstream Infection Confirmed is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

b. If Bloodstream Infection Confirmed equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. c. If Bloodstream Infection Confirmed equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing. Calculation of adjusted outcome:

Step 1 -- Identify the measure population through Measure Category Assignments. Risk adjusted rate-based measure: Identify the numerator (Measure Category Assignment = E) and the denominator (Measure Category Assignment = D) cases using the information provided in the Measure Information Form (MIF). Risk adjusted continuous variable measure: Identify the number of cases in the measure population (Measure Category Assignment = D). At this time, there are no risk adjusted continuous outcome measures in any of the national hospital quality measure sets. Note: Do not calculate a Predicted Value for a case if it is rejected by front-end edits or is

rejected because one or more measures in the measure set evaluates to a Measure Category Assignment = X.

Step 2 -- Create risk factors for the measure.

Using the Risk Model Information File provided by the Joint Commission, identify all applicable EOC record data elements and the associated risk factor values for each of the EOC records identified instep 1. Risk factors include patient demographic and/or clinical factors, which can influence outcomes of care. Some examples of risk factors include age, sex, and comorbidities — such as diabetes or a history of hypertension. As an example, Figure 1 lists the data elements required for risk adjustment of generic measure 'ABC'. Using the data for measure 'ABC', the performance measurement system must identify the risk factors at the EOC record-level, and create data subsets for each participating hospital. Available at measure-specific web page URL identified

# 1731 PC-04 Health Care-Associated Bloodstream Infections in Newborns Copyright / 5.1 Identified measures: 0304: Late sepsis or meningitis in Very Low Birth Weight Disclaimer (VLBW) neonates (risk-adjusted) 0478: Neonatal Blood Stream Infection Rate (NQI 03) 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: Measure 0304 addresses infections in the newborn. Measure 0304 evaluates very low birth weight newborns for both late sepsis and meningitis with birth weights between 401 and 1500 Gms and a gestational age between 22 weeks 0 days and 28 weeks six days. Measure 0304 also evaluates all newborns who are in the hospital after 3 days of birth. Numerator inclusions for measure 0304 are a bacterial pathogen recovered from a blood culture and/or cerebrospinal fluid culture obtained after Day 3 of life OR all 3 of the following: 1.) Coagulase Negative Staphylococcus recovered from a blood culture from either a central line or peripheral blood sample and/or is recovered from cerebrospinal fluid by lumbar puncture, ventricular tap or ventricular drain 2.) One or more signs of generalized infection (i.e., apnea, temperature instability, feeding intolerance, worsening respiratory distress or hemodynamic instability) and 3.) Treatment with 5 or more days of intravenous antibiotics. The major differences between measure 0304 and measure 1731 are: • Measure 1731 does not include cases with meningitis based on results from cerebrospinal fluid cultures • Measure 1731 includes birth weights which are 500 Gms or more rather than 400 Gms or more, and measure 1731 also includes newborns 1500 gms or more with one or more specific medical indication: major surgery, mechanical ventilation, expired or transferred-in. • Measure 1731 excludes newborns born with infections within the first 48 hours of admission and newborns with bloodstream infections occurring after the first 48 hours after birth that are due to causes that are not health care-associated, i.e., necrotizing enterocolitis, urosepsis, etc. 5b.1 If competing, why superior or rationale for additive value: Measure 0478 is similar to this measure. The fundamental differences are that measure 0478 has been developed to collect all data elements using administrative data. Such an approach has led in some cases to loss of specificity available through review of the medical record. The two measures have been harmonized to the extent possible; however, there are intrinsic differences which are addressed in a comparison table in the

attachment found in Section A.1 Supplemental Materials.

	2829 PC-01 Elective Delivery
Status	Submitted
Steward	The Joint Commission
Description	This measure assesses patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). PC-01, Elective Delivery is one of two of the measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.
Туре	Process
Data Source	Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Electronic Clinical Data: Pharmacy Hospitals report EHR data using Certified Electronic Health Record Technology (CEHRT), and by submitting Quality Reporting Document Architecture Category 1 (QRDA-1).  No data collection instrument provided Attachment ElectiveDelivery v4 Wed Apr 01 14.49.44 CDT 2015-635908096518042002.xls
Level	Facility, Population : National
Setting	Hospital/Acute Care Facility
Numerator Statement	Patients with elective deliveries by either:  - Medical induction of labor while not in labor prior to the procedure  - Cesarean birth while not in labor and with no history of a prior uterine surgery
Numerator Details	<ul> <li>Medical Induction of Labor is represented as a code from one of the following value sets and associated QDM datatype:</li> <li>Procedure, Performed: Medical Induction of Labor (OID 2.16.840.1.113883.3.117.1.7.1.288)</li> <li>Procedure, Performed: Artificial Rupture of Membranes (OID 2.16.840.1.113762.1.4.1045.57)</li> <li>Medication, Administered: Oxytocin (OID 2.16.840.1.113762.1.4.1045.55)</li> <li>Medication, Administered: Dinoprostone (OID 2.16.840.1.113762.1.4.1045.56)</li> <li>Labor is represented with the QDM datatype and value set of "Physical Exam, Performed: Labor (OID 2.16.840.1.113883.3.117.1.7.1.281)</li> <li>Cesarean Birth is represented with the QDM data type and value set of "Procedure, Performed: Cesarean Birth (OID: 2.16.840.1.113883.3.117.1.7.1.282)</li> <li>Prior Uterine Surgery is represented as a code from one of the following value sets and associated QDM datatype:</li> <li>Diagnosis, Resolved: Perforation of Uterus (OID 2.16.840.1.113883.3.117.1.7.1.136)</li> <li>Diagnosis, Resolved: Uterine Window (OID</li> </ul>

	2829 PC-01 Elective Delivery
	o Diagnosis, Resolved: Uterine Rupture (OID
	2.16.840.1.113883.3.117.1.7.1.138)
	o Diagnosis, Inactive: Cornual Ectopic Pregnancy (OID
	2.16.840.1.113762.1.4.1045.27)
	o Procedure, Performed: Classical Cesarean Birth (OID
	2.16.840.1.113883.3.117.1.7.1.421)
	o Procedure, Performed: Myomectomy (OID
	2.16.840.1.113883.3.117.1.7.1.422)
	o Procedure, Performed: Transabdominal Cerclage (OID
	2.16.840.1.113762.1.4.1110.2)
	To access the value sets for the measure, please visit the Value Set Authority Center
	(VSAC), sponsored by the National Library of Medicine, at this link:
	https://vsac.nlm.nih.gov/.
Denominator	The Denominator is patients who deliver newborns with >= 37 and < 39 weeks of
Statement	gestation completed.
Denominator	- Estimated Gestational Age is represented with the QDM datatype and value
Details	set of Physical Exam, Performed: Estimated Gestational Age at Delivery (OID:
	2.16.840.1.113762.1.4.1045.26)
	- Time of Delivery is represented with the QDM datatype and value set of
	Physical Exam, Performed: Time of Delivery (OID: 2.16.840.1.113762.1.4.1045.28)
Exclusions	ICD-9-CM, ICD-10-CM, or SNOMED CT codes for conditions possibly justifying elective
	delivery prior to 39 weeks gestation.
Exclusion	- Conditions possibly justifying elective delivery are represented with the QDM
details	datatype and value set Diagnosis, Active: Conditional Possibly Justifying Elective
	Delivery Prior to 39 Weeks Gestation (OID: 2.16.840.1.113883.3.117.1.7.1.286)
Risk	No risk adjustment or risk stratification
Adjustment	Not Applicable
Stratification	Not Applicable, the measure is not stratified
Type Score	Rate/proportion better quality = lower score
Algorithm	See attached HQMF file. Available at measure-specific web page URL identified in S.1
Copyright /	5.1 Identified measures: 0469 : PC-01 Elective Delivery
Disclaimer	
	5a.1 Are specs completely harmonized? Yes
	To 2 If not completely beginning identify difference actionals insect. The
	5a.2 If not completely harmonized, identify difference, rationale, impact: The
	measures are completely harmonized to the extent possible, given the fact that the
	data source for #0469 is the paper medical record, and the data source for #2829 is
	the electronic health record.
	5h 1 If compating why superior or rationals for additive value. Not Applicable
	5b.1 If competing, why superior or rationale for additive value: Not Applicable.

T
The Joint Commission
PC-05 assesses the number of newborns exclusively fed breast milk during the newborn's entire hospitalization. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns). PC-05, Exclusive Breast Milk Feeding, is one of two measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.
Process
Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record Hospitals report EHR data using Certified Electronic Health Record Technology (CEHRT), and by submitting Quality Reporting Document Architecture Category 1 (QRDA-1).  No data collection instrument provided Attachment  ExclusiveBreastMilkFeeding_v4_Fri_Nov_13_10.29.14_CST_2015.xls
Facility, Population : National
Hospital/Acute Care Facility
Newborns that were fed breast milk only since birth
<ul> <li>Administration of breast milk is represented with the QDM datatype and value set of Substance, Administered: Breast Milk (OID: 2.16.840.1.113883.3.117.1.7.1.30)</li> <li>Administration of other dietary intake is represented with Substance, Administered: Dietary Intake Other than Breast Milk (OID: 2.16.840.1.113883.3.117.1.7.1.27)</li> <li>To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at this link: https://vsac.nlm.nih.gov/</li> </ul>
Single term newborns discharged from the hospital who did not have a diagnosis of
galactosemia, were not subject to parenteral nutrition, and had a length of stay of less than or equal to 120 days
Inpatient Encounters are represented using the QDM datatype and value set of Encounter, Performed: Encounter Inpatient (OID: 2.16.840.1.113883.3.117.1.7.1.25). Length of stay is calculated within the measure based on encounter start and end dates.  Single term newborns are represented by the following QDM datatypes and value sets:  o Physical Exam, Performed: Estimated Gestational Age at Birth (Result>=37 weeks) using Estimated Gestational Age at Birth SNOMEDCT Value Set (OID: 2.16.840.1.113762.1.4.1045.47)  o Diagnosis, Active: Single Live Birth using Single Live Birth SNOMEDCT Value

	2830 PC-05 Exclusive Breast Milk Feeding
	o Diagnosis, Active Single Live Born Newborn Born in Hospital using Single Live
	Born Newborn Born in Hospital Grouping Value Set
	(2.16.840.1.113883.3.117.1.7.1.26)
	- Galactosemia is represented using the QDM datatype and value set of
	Diagnosis, Active: Galactosemia (OID: 2.16.840.1.113883.3.117.1.7.1.35)
	- Parenteral Nutrition is represented using the QDM datatype and value set of
	Procedure, Performed: Parenteral Nutrition (OID: 2.16.840.1.113883.3.117.1.7.1.38)
Exclusions	- Newborns who were admitted to the Neonatal Intensive Care Unit (NICU)
	- Newborns who were transferred to an acute care facility
	- Newborns who expired during the hospitalization
Exclusion	NICU admissions, transfers to another facility, and patient expiration are all
details	represented in QDM as attributes of the inpatient encounter.
	o facility location: Neonatal Intensive Care Unit (NICU) (OID:
	2.16.840.1.113883.3.117.1.7.1.75)
	o discharge status: Patient Expired (OID: 2.16.840.1.113883.3.117.1.7.1.309)
	o discharge status: Discharge to Acute Care Facility (OID:
	2.16.840.1.113883.3.117.1.7.1.87)
Risk	No risk adjustment or risk stratification
Adjustment	Not Applicable
Stratification	Not Applicable
Type Score	Rate/proportion better quality = higher score
Algorithm	See attached HQMF file Available at measure-specific web page URL identified in S.1
Copyright /	5.1 Identified measures: 0480 : PC-05 Exclusive Breast Milk Feeding
Disclaimer	
	5a.1 Are specs completely harmonized? Yes
	5a.2 If not completely harmonized, identify difference, rationale, impact: #0480:
	Exclusive Breast Milk Feeding: The measures are completely harmonized to the extent
	possible, given the fact that the data source for #0480 is the paper medical record,
	and the data source for #2830 is the electronic health record.
	5b.1 If competing, why superior or rationale for additive value: Not Applicable

	2902 Contraceptive Care - Postpartum
Status	Submitted
Steward	US Office of Population Affairs
Description	Among women ages 15 through 44 who had a live birth, the percentage that is provided:
	1) A most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS)) or moderately (i.e., injectables, oral pills, patch, ring, or diaphragm)
	effective method of contraception within 3 and 60 days of delivery.  2) A long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery.
	Two time periods are proposed (i.e., within 3 and within 60 days of delivery) because each reflects important clinical recommendations from the U.S. Centers for Disease
	Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG). The 60-day period reflects ACOG recommendations that
	women should receive contraceptive care at the 6-week postpartum visit. The 3-day period reflects CDC and ACOG recommendations that the immediate postpartum period (i.e., at delivery, while the woman is in the hospital) is a safe time to provide contraception, which may offer greater convenience to the client and avoid missed
	opportunities to provide contraceptive care.
Туре	Intermediate Clinical Outcome
Data Source	Administrative claims Adminisrative claims data are used to calculate the measure. The data request should include an eligibility file, paid and denied claims with diagnosis codes and procedures codes (HCPCS, CPT, and ICD-9-PCS/ICD-10-PCS), as well as NDC codes.  Attachment Codes 2014 and 2015 Postpartum Contraception.xlsx
Level	Health Plan, Population : Regional
Setting	· · · · · ·
Numerator Statement	Primary measure: Women ages 15 through 44 who had a live birth and were provided a most (sterilization, intrauterine device, implant) or moderately (pill, patch, ring, injectable, diaphragm) effective method of contraception within 3 and 60 days of delivery.  Sub-measure: Women ages 15 through 44 who had a live birth and were provided a long-acting reversible method of contraception (LARC) within 3 and 60 days of delivery.
Numerator Details	The target population is women ages 15- 44 who had a live birth and were provided a most or moderately effective method (primary measure) or a LARC method (submeasure) of contraception. All claims codes are found in the attached Excel files. To identify the numerator, follow these steps:  Step 1 Use the codes in Table PCU-C to identify women who were provided a most (sterilization, IUD, implant) or moderately (injection, oral pills, patch, ring, or diaphragm) effective method of contraception in the measurement year. Use the codes in PCU-E to identify women who were provided a LARC method.

	2902 Contraceptive Care - Postpartum
Donominator	Step 2 The long-acting reversible contraceptive (LARC) methods of intrauterine devices (IUD) and implants can be removed at the woman's request so adjustments must be made to reflect this. Use the codes in Table PCU -D to identify women who had their IUD or implant removed at any point during the measurement year. Check to see if they had an IUD or implant reinserted on the same or a subsequent date. [For the primary measure] If there is no code indicating reinsertion, use the codes in Table PCU -E to determine whether a woman was provided another most or moderately effective method. Do so by looking back over the 30 days prior to the removal (since a woman may receive a prescription for another method prior to the removal) as well as the period after the LARC removal. If there is no code for reinsertion or provision of another most or moderately effective method, consider them as a non-user.  Step 3 Subtract the number of women identified as non-users of contraception in step 2 from those identified in step 1 to determine the numerator. Calculate the numerator separately for the two age groups: adolescents and adults.  Women ages 15 through 44 who had a live birth in a 12-month measurement year.
Denominator Statement	women ages 15 through 44 who had a live birth in a 12-month measurement year.
Denominator	The target population is women ages 15 through 44 who had a live birth in a 12-
Details	month measurement year. In a Medicaid population, this includes women who were enrolled from the date of delivery to 60 days postpartum.
Exclusions	The following categories are excluded from the denominator: (1) deliveries that did not end in a live birth (i.e., miscarriage, ectopic, stillbirth or induced abortion); and (2) deliveries that occurred during the last two months of the measurement year.
Exclusion details	Women are excluded from the denominator if they did not have an opportunity to receive contraception in the postpartum period (defined as within 60 days of delivery). All claims codes are found in the attached Excel files. Follow the steps below to identify the eligible population:  Step 1 Identify live births and deliveries by using codes in Table PCU-A (we used the codes developed for the HEDIS measure of Prenatal and Postnatal care). Some women may have more than one delivery in the measurement year; the measure is designed to identify unique live births (defined as those that occur >180 days apart) rather than women who had a live birth.  Step 2 Exclude deliveries that did not end in a live birth (i.e., miscarriage, ectopic, stillbirth, or pregnancy termination) by using the codes in Table PCU-B. We used the codes developed to identify live births for the HEDIS measure of Prenatal and Postnatal Care.  Step 3 Exclude deliveries that occurred during the last 2 months of the measurement year. These deliveries should be excluded from the denominator because there may not have been an opportunity to provide the mother with contraception during the postpartum period. A two-month period was selected because the American College

	2902 Contraceptive Care - Postpartum
	6 weeks, and an additional 2 weeks was added to allow for reasonable delays in attending the postpartum visit.
Risk	No risk adjustment or risk stratification
Adjustment	We do not believe that risk adjustment is justified. Although there are possible variations in contraceptive provision by socio-demographic characteristics, the reason for those patterns is based on modifiable clinical and programmatic considerations ra
Stratification	The primary stratification variable is age, so that adolescents can be examined separately from adult women. We propose this stratification for purposes of QI but not as a method of risk adjustment. Teen pregnancy is worthy of a separate focus becaus
Type Score	Rate/proportion better quality = score within a defined interval
Algorithm	Step 1 Identify live births that occurred in the measurement year. Some women may have more than one delivery in the measurement year; the measure is designed to identify unique live births (defined as those that occur >180 days apart) rather than women who had a live birth.  Step 2 Exclude the following deliveries:  Those that did not end in a live birth (i.e., miscarriage, ectopic, stillbirth, or pregnancy termination).  Those that occurred during the last 2 months of the measurement year. These deliveries should be excluded from the denominator because there may not have been an opportunity to provide the mother with contraception during the postpartum period.  Step 3 Define the numerator by identifying women who were provided a most (sterilization, IUD, implant) or moderately (injection, oral pills, patch, ring, or diaphragm) effective method of contraception in the measurement year (primary measure). For the sub-measure, identify women who were provided a LARC method. Step 4 Determine the date that the contraceptive method was provided, to identify women who were rovided it: (a) within 3 day sof delivery, and (b) within 60 days of delivery.  Step 5 Divide the number of women using a most or moderately effective method [or LARC, for the sub-measure] by the number of eligible women in the denominator. Calculate the rates separately for the two age groups: adolescents and adults.
Copyright /	Available in attached appendix at A.1  5.1 Identified measures: 1517 : Prenatal & Postpartum Care (PPC)
Disclaimer	5a.1 Are specs completely harmonized? Yes
	5a.2 If not completely harmonized, identify difference, rationale, impact:
	5b.1 If competing, why superior or rationale for additive value: The proposed measure considers contraceptive care for the same population addressed in the

2902 Contraceptive Care - Postpartum
NCQA measure on prenatal and postpartum care (PPC) (NQF#1517), although the measures address different types of services. We have aligned the contraceptive measure with the PCC measure to the extent possible, with regard to identifying the population of women with live births.

	2903 Contraceptive Care – Most & Moderately Effective Methods
Status	Submitted
Steward	US Office of Population Affairs
Description	The percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a most effective (i.e., sterilization, implants, intrauterine devices or systems (IUD/IUS)) or moderately effective (i.e., injectables, oral pills, patch, ring, or diaphragm) FDA-approved methods of contraception.  The proposed measure is an intermediate outcome measure because it represents a decision that is made at the end of a clinical encounter about the type of contraceptive method a woman will use, and because of the strong association between type of contraceptive method used and risk of unintended pregnancy.
Туре	Intermediate Clinical Outcome
Data Source	Administrative claims Adminisrative claims data are used to calculate the measure. The data request should include an eligibility file, paid and denied claims with diagnosis codes and procedures codes (HCPCS, CPT, and ICD-9-PCS/ICD-10-PCS), as well as NDC codes.  Available in attached appendix at A.1 Attachment  Codes_2014_and_2015_MOST_MOD.xlsx
Level	Facility, Health Plan, Population : Regional, Population : State
Setting	
Numerator Statement	Women aged 15-44 years of age at risk of unintended pregnancy who are provided a most (sterilization, intrauterine device, implant) or moderately (pill, patch, ring, injectable, diaphragm) effective method of contraception.
Numerator Details	The target population is eligible women 15-44 years of age who are provided a most or moderately effective method of contraception. To identify the numerator, follow these steps:  Step 1 Define the numerator by identifying women who used a most (sterilization, IUD, implant) or moderately (injection, oral pills, patch, ring, or diaphragm) effective method of contraception in the measurement year. To do this, use the codes in Table UCM-E.  Step 2 Adjust for LARC removals and re-insertions. The LARC methods can be removed at the woman's request so adjustments must be made to reflect this. Use the codes in Table UCM-F to identify women who had their IUD or implant removed at any point during the measurement year. Check to see if they had an IUD or implant reinserted on the same or a subsequent date. If there is no code indicating reinsertion, use the codes in Table UCM-E to determine whether a woman was provided another most or moderately effective method. Do so by looking back over the 30 days prior to the removal (since a woman may receive a prescription for another method prior to the removal) as well as the period after the LARC removal (i.e., through the end of the measurement year). If there is no code for reinsertion or provision of another most or moderately effective method, consider them as a non-user.

	2903 Contraceptive Care – Most & Moderately Effective Methods
	Step 3 Calculate the rates by dividing the number of women who used a most or moderately effective method of contraception by the number of women in the denominator. Calculate the rates separately for adolescents and adults.
Denominator Statement	Women aged 15-44 years of age who are at risk of unintended pregnancy.
Denominator Details	The target population is women of reproductive age (i.e., ages 15–44 years). In a Medicaid population, this includes:  • Women in the general Medicaid program who were continuously enrolled during the measurement year, i.e., had no more than one gap in enrollment of up to 45 days. To determine continuous enrollment for a Medicaid enrollee for whom enrollment is verified monthly, the enrollee may not have more than a 1-month gap in coverage (i.e., an enrollee whose coverage lapses for 2 months is not considered continuously enrolled)  • All women participating in a state-sponsored family planning-specific Section 1115 waiver or in a family–planning specific state plan amendment (SPA) program, even if they were not continuously enrolled. This is because the primary intent of these waiver and/or SPA programs is to provide family planning services, including contraception.
Exclusions	The following categories of women are excluded from the denominator: (1) those who are infecund for non-contraceptive reasons; (2) those who had a live birth in the last 2 months of the measurement year; or (3) those who were still pregnant or their pregnancy outcome was unknown at the end of the year.
Exclusion details	Follow the steps below to identify the denominator. The tables that are referenced are found in the attached Excel files (one file is for 2014 and the second is for 2015). Step 1 Identify and exclude women who were infecund due to non-contraceptive reasons such as natural menopause or oophorectomy. To do this, use the codes listed in Table UCM-A.  Step 2 Identify women who were pregnant at any point in the measurement year by using the codes listed in Table UCM-B. We obtained this list of codes by reviewing the following documents, and including all pregnancy-related codes:  CMS & NCHS (2011). ICD-9-CM Official Guidelines for Coding and Reporting, effective October 1, 2011. Available online at:  http://www.cdc.gov/nchs/icd/icd9cm_addenda_guidelines.htm.  CMS & NCHS (2016). ICD-10-CM Official Guidelines for Coding and Reporting FY 2016 Available online at: http://www.cdc.gov/nchs/icd/icd10cm.htm.
	<ul> <li>Step 3 Among women who were pregnant at any point in the measurement year, exclude those who:</li> <li>Had a live birth in the last 2 months of the measurement year because there may not have been an opportunity to provide them with contraception. A two-month period was selected because the American College of Obstetricians and Gynecologists (ACOG) recommends having a postpartum visit by 6 weeks, and an additional 2 weeks</li> </ul>

	2903 Contraceptive Care – Most & Moderately Effective Methods
	<ul> <li>was added to allow for reasonable delays in attending the postpartum visit. To identify live births, use the codes listed in Table UCM-D. This list of codes is drawn from the HEDIS measure of Prenatal and Postnatal care.</li> <li>Were still pregnant at the end of the year because they did not have a pregnancy outcome code indicating a non-live birth (Table UCM-C) or a live birth (Table UCM-D). Codes for non-live births were also drawn from the HEDIS measure of Prenatal and Postnatal Care.</li> <li>Once the exclusions are applied, the denominator includes women who:</li> <li>Were not pregnant at any point in the measurement year,</li> <li>Were pregnant during the measurement year but whose pregnancy ended in the first 10 months of the measurement year, since there was adequate time to provide contraception in the postpartum period.</li> <li>Were pregnant during the measurement year but whose pregnancy ended in</li> </ul>
	an ectopic pregnancy, stillbirth, miscarriage, or induced abortion.
Risk Adjustment	No risk adjustment or risk stratification  We do not believe that risk adjustment is justified. Although there are some variations in contraceptive use by socio-demographic characteristics, the reason for those patterns is based on modifiable clinical and programmatic considerations rather than
Stratification	The primary stratification variable is age, so that adolescents can be examined separately from adult women. We recommend this for purposes of QI, rather than for purposes of risk stratification. Teen pregnancy is worthy of a separate focus because of t
Type Score	Rate/proportion better quality = higher score
Algorithm	Step 1 Identify all women aged 15-44 years of age who were enrolled in the health plan or program. In the case of general Medicaid, include women who were continuously enrolled (i.e., had no more than one gap in enrollment of up to 45 days). In the case of women enrolled in a family planning-specific expansion program (1115 waiver or state plan amendment), include all women even if they do not meet the continuous enrollment criteria because the reason for their visit is related to pregnancy prevention.  Step 2 Define the denominator by excluding women who: (a) are infecund for noncontraceptive reasons; (b) had a live birth in the last 2 months of the measurement year; or (c) were still pregnant or their pregnancy outcome was unknown at the end of the year. Once exclusions are applied, the following groups of women will be included in the denominator: (a) those who were were not pregnant at any point in the measurement year; (b) those who had a live birth in the first 10 months of the measurement year; and (c) those who had a known miscarriage, stillbirth, ectopic pregnancy, or induced abortion during the measurement year.  Step 3 Define the numerator by using claims codes to identify women who

# 2903 Contraceptive Care – Most & Moderately Effective Methods adopted or continued use of one of the following methods of contraception in the measurement year: sterilization, IUD, implant, contraceptive injection, contraceptive pills, patch, ring, or diaphragm. Adjust for LARC removals, in the manner specified above. Step 4 Calculate the rates by dividing the number who used a most or moderately effective method of contraception by the number of women in the denominator. Calculate the rates separately for adolescents and adults. Available in attached appendix at A.1 Copyright / 5.1 Identified measures: Disclaimer 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: NOTE: OPA is submitting two other applications for NQF endorsement, which are complementary to this measure application. One of the applications focuses on use of most and moderately effective contraceptive methods in a key sub-population of women at risk of unintended pregnancy, i.e., postpartum women. The other application focuses on use of a sub-set of contraceptive methods, i.e., use of long-acting reversible contraception (LARC); the goal of this measure to monitor whether women have access to LARC methods as determined by whether any units report very low levels of LARC use (e.g., less than 1-2 percent) or at a level that is substantially below the mean when compared to other reporting units.

	2904 Contraceptive Care - Access to LARC
Status	Submitted
Steward	US Office of Population Affairs
Description	Percentage of women aged 15-44 years at risk of unintended pregnancy that is provided a long-acting reversible method of contraception (i.e., implants, intrauterine devices or systems (IUD/IUS).  It is an access measure because it is intended to identify situations in which women do not have access to the long-acting reversible methods of contraception (LARC), i.e., contraceptive implants and intrauterine devices.
Туре	Structure
Data Source	Administrative claims Administrative claims data are used to calculate the measure. The data request should include an eligibility file, paid and denied claims with diagnosis codes and procedures codes (HCPCS, CPT, and ICD-9-PCS/ICD-10-PCS), as well as NDC codes.  Available in attached appendix at A.1 Attachment Codes_2014_and_2015_LARC.xlsx
Level	Facility, Health Plan, Population : Regional, Population : State
Setting	
Numerator Statement	Women aged 15-44 years of age at risk of unintended pregnancy who were provided a long-acting reversible method of contraception (LARC), i.e., intrauterine device or implant.
Numerator Details	The target population is eligible women 15-44 years of age who were provided a long-acting reversible method of contraception (LARC). To identify the numerator, follow these steps:  Step 1 Define the numerator by identifying women who used a a long-acting reversible method of contraception (LARC) in the measurement year. To do this, use the codes in Table UCM-E.  Step 2 Adjust for LARC removals and re-insertions. The LARC methods can be removed at the woman's request so adjustments must be made to reflect this. Use the codes in Table UCM-F to identify women who had their IUD or implant removed at any point during the measurement year. Check to see if they had an IUD or implant reinserted on the same or a subsequent date through the end of the measurement year. If there is no code for reinsertion or provision of another most or moderately effective method, consider them as a non-user of LARC.  Step 3 Calculate the rates by dividing the number of women who used a most or moderately effective method of contraception by the number of women in the denominator. Calculate the rates separately for adolescents and adults.
Denominator Statement	All women aged 15-44 years of age who are at risk of unintended pregnancy.
Denominator Details	The target population is women of reproductive age (i.e., ages 15–44 years). In a Medicaid population, this includes:  • Women in the general Medicaid program who were continuously enrolled during the measurement year, i.e., had no more than one gap in enrollment of up to

# 2904 Contraceptive Care - Access to LARC 45 days. To determine continuous enrollment for a Medicaid enrollee for whom enrollment is verified monthly, the enrollee may not have more than a 1-month gap in coverage (i.e., an enrollee whose coverage lapses for 2 months is not considered continuously enrolled) All women participating in a state-sponsored family planning-specific Section 1115 waiver or in a family-planning specific state plan amendment (SPA) program, even if they were not continuously enrolled. This is because the primary intent of these waiver and/or SPA programs is to provide family planning services, including contraception. **Exclusions** The following categories of women are excluded from the denominator: (1) those who are infecund for non-contraceptive reasons; (2) women who had a live birth in the last 2 months of the measurement year; or (3) women were still pregnant or their pregnancy outcome was unknown at the end of the year. **Exclusion** Follow the steps below to identify the denominator. The tables that are referenced details are found in the attached Excel files (one file is for 2014 and the second is for 2015). Step 1 Identify and exclude women who were infecund due to non-contraceptive reasons such as natural menopause or oophorectomy. To do this, use the codes listed in Table UCM-A. Step 2 Identify women who were pregnant at any point in the measurement year by using the codes listed in Table UCM-B. We obtained this list of codes by reviewing the following documents, and including all pregnancy-related codes: CMS & NCHS (2011). ICD-9-CM Official Guidelines for Coding and Reporting, effective October 1, 2011. Available online at: http://www.cdc.gov/nchs/icd/icd9cm addenda guidelines.htm. CMS & NCHS (2016). ICD-10-CM Official Guidelines for Coding and Reporting FY 2016 Available online at: http://www.cdc.gov/nchs/icd/icd10cm.htm. Step 3 Among women who were pregnant at any point in the measurement year, exclude those who: Had a live birth in the last 2 months of the measurement year because there may not have been an opportunity to provide them with contraception. A two-month period was selected because the American College of Obstetricians and Gynecologists (ACOG) recommends having a postpartum visit by 6 weeks, and an additional 2 weeks was added to allow for reasonable delays in attending the postpartum visit. To identify live births, use the codes listed in Table UCM-D. This list of codes is drawn from the HEDIS measure of Prenatal and Postnatal care. Were still pregnant at the end of the year because they did not have a pregnancy outcome code indicating a non-live birth (Table UCM-C) or a live birth (Table UCM-D). Codes for non-live births were also drawn from the HEDIS measure of Prenatal and Postnatal Care. Once the exclusions are applied, the denominator includes women who: were not pregnant at any point in the measurement year; were pregnant during the

	2904 Contraceptive Care - Access to LARC
	measurement year but whose pregnancy ended in the first 10 months of the measurement year, since there was adequate time to provide contraception in the postpartum period; or were pregnant during the measurement year but whose pregnancy ended in an ectopic pregnancy, stillbirth, miscarriage, or induced abortion.
Risk	No risk adjustment or risk stratification
Adjustment	We do not believe that risk adjustment is justified. Although there are some variations in LARC use by socio-demographic characteristics, the reason for those patterns is based on modifiable clinical and programmatic considerations rather than differing
Stratification	The primary stratification variable is age, so that adolescents can be examined separately from adult women. The is for purposes of quality improvement, and not risk adjustment. Teen pregnancy is worthy of a separate focus because of the largepotentia
Type Score	Rate/proportion better quality = score within a defined interval
Algorithm	Step 1 Identify all women aged 15-44 years of age who were enrolled in the health plan or program. In the case of general Medicaid, include women who were continuously enrolled (i.e., had no more than one gap in enrollment of up to 45 days). In the case of women enrolled in a family planning-specific expansion program (1115 waiver or state plan amendment), include all women even if they do not meet the continuous enrollment criteria because the reason for their visit is related to pregnancy prevention.  Step 2 Define the denominator by excluding women who: (a) are infecund for noncontraceptive reasons; (b) had a live birth in the last 2 months of the measurement year; or (c) were still pregnant or their pregnancy outcome was unknown at the end of the year. Once exclusions are applied, the following groups of women will be included in the denominator: (a) those who were were not pregnant at any point in the measurement year; (b) those who had a live birth in the first 10 months of the measurement year; and (c) those who had a known miscarriage, stillbirth, ectopic pregnancy, or induced abortion during the measurement year.
	Step 3 Define the numerator by using claims codes to identify women who adopted or continued use of a long-acting reversible method of contraception (LARC), i.e., IUD or implant. Adjust for LARC removals, in the manner specified above.  Step 4 Calculate the rates by dividing the number who used a long-acting reversible method of contraception (LARC) by the number of women in the denominator.  Calculate the rates separately for adolescents and adults. Available in attached appendix at A.1
Copyright / Disclaimer	5.1 Identified measures: 5a.1 Are specs completely harmonized?

# 2904 Contraceptive Care - Access to LARC 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: NOTE: OPA is submitting two other applications for NQF endorsement, which are complementary to this measure application. One of the applications focuses on use of most and moderately effective contraceptive methods in a key sub-population of women at risk of unintended pregnancy, i.e., postpartum women. The other application focuses on use of most (sterilization, IUD, implant) and moderately (shot, pill, patch, ring,

diaphragm) effective methods of contraception, of which LARC methods are a subset.

# **Appendix F: Related and Competing Measures**

# Comparison of NQF 0033 and NQF 0409

	0033: Chlamydia Screening in Women (CHL)	0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for
		Chlamydia, Gonorrhea, and Syphilis
Steward	National Committee for Quality Assurance	National Committee for Quality Assurance
Description	The percentage of women 16–24 years of age who were identified as	Percentage of patients aged 13 years and older with a diagnosis of
	sexually active and who had at least one test for chlamydia during	HIV/AIDS, who have received chlamydia, gonorrhea, and syphilis
	the measurement year.	screenings at least once since the diagnosis of HIV infection
Туре	Process	Process
Data Source	Administrative claims, Electronic Clinical Data, Electronic Clinical	Electronic Clinical Data : Electronic Health Record N/A
	Data: Imaging/Diagnostic Study, Electronic Clinical Data:	No data dictionary
	Laboratory, Electronic Clinical Data: Pharmacy This measure is based	
	on administrative claims collected in the course of providing care to	
	health plan members. NCQA collects the Healthcare Effectiveness	
	Data and Information Set (HEDIS) data for this measure directly from	
	Health Management Organizations and Preferred Provider	
	Organizations via NCQA's online data submission system.	
	No data collection instrument provided Attachment	
	0033_CHL_Value_Sets.xlsx	
Level	Health Plan, Integrated Delivery System	Clinician : Group/Practice, Clinician : Individual
Setting	Ambulatory Care : Clinician Office/Clinic	Ambulatory Care : Clinician Office/Clinic
Numerator	Females who were tested for chlamydia during the measurement	Patients who have received chlamydia, gonorrhea, and syphilis
Statement	year.	screenings at least once since the diagnosis of HIV infection
Numerator	Females who had at least one test for chlamydia (see attached:	
Details	Chlamydia Tests Value Set) during the measurement year.	
Denominator	Females 16-24 years who had a claim or encounter indicating sexual	All patients aged 13 years and older with a diagnosis of HIV/AIDS, who
Statement	activity.	had at least two visits during the measurement year, with at least 90
		days between visits
Denominator	All female patients 16-24 years as of December 31 of the	Definition of "Medical Visit" - any visit with a health care professional

	0033: Chlamydia Screening in Women (CHL)	0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis
Details	measurement year and who were identified as sexually active during the measurement year.  Sexually active: Two methods are used to identify sexually active women: pharmacy data (see CHL-A: Prescriptions to Identify Contraceptives) and claim/encounter data (see attached: Pregnancy Value Set, Sexual Activity Value Set, and Pregnancy Tests Value Set).  Both methods are used to identify the eligible population; however, a patient only needs to be identified in one method to be eligible for the measure.  Table CHL-A: Prescriptions to Identify ContraceptivesContraceptives: Desogestrel-ethinyl estradiol; Dienogest-estradiol multiphasic; Drospirenone-ethinyl estradiol-levomefolate biphasic; Ethinyl estradiol-ethynodiol; Ethinyl estradiol-levonorgestrel; Ethinyl estradiol-norethindrone; Ethinyl estradiol-norethindrone; Ethinyl estradiol-norgestimate; Ethinyl estradiol-norgestrel; Etonogestrel; Levonorgestrel; Medroxyprogesterone; Mestranol-norethindrone; NorethindroneDiaphragmSpermicide: Nonxynol 9	who provides routine primary care for the patient with HIV/AIDS (may be a primary care physician, ob/gyn, pediatrician or infectious diseases specialist)
Exclusions	Females who received a pregnancy test to determine contraindications for medication (isotretinoin) or x-ray.	None
Exclusion Details	Exclude members from the denominator who were identified as sexually active based on a pregnancy test alone (see attached: Pregnancy Tests Value Set) AND who meet either of the following:  1) A pregnancy test (see attached: Pregnancy Test Exclusion Value Set) during the measurement year AND a prescription for isotretinoin (see Table CHL-E: Medications to Identify Exclusions) on the date of the pregnancy test or the 6 days after the pregnancy	N/A

	0033: Chlamydia Screening in Women (CHL)	0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for
		Chlamydia, Gonorrhea, and Syphilis
	test.	
	2) A pregnancy test (see attached: Pregnancy Test Exclusion Value	
	Set) during the measurement year AND a x-ray (see attached:	
	Diagnostic Radiology Value Set) on the date of the pregnancy test or	
	the 6 days after the pregnancy test.	
	Table CHL-E: Medications to Identify Exclusions	
	Retinoid: Isotretinoin	
Risk	No risk adjustment or risk stratification	No risk adjustment or risk stratification
Adjustment	NA NA	N/A
Stratification	The measure includes two age stratifications and a total rate:	N/A
	1) 16-20 years.	
	2) 21-24 years.	
	3) Total	
Type Score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score
Algorithm	Refer to items S.9 (Denominator details) and S.2b (Data Dictionary)	Measure Calculation
	for tables.	For performance purposes, this measure is calculated by creating a
	Step 1 Determine the eligible population. To do so, identify all	fraction with the following components: Denominator, Numerator.
	female patients in the specified age range who had a	Step 1: Determine the eligible population. The eligible population is all
	claim/encounter indicating sexual activity (Pregnancy Value Set,	the patients, aged 13 years and older, with a diagnosis of HIV/AIDS.
	Sexual Activity Value Set, Pregnancy Tests Value Set) and/or were	Step 2: Determine number of patients meeting the denominator
	dispensed prescription contraceptives (Table CHL-A) during the	criteria as specified in Section S.7 above.
	measurement year.	Step 3: Determine the number of patients who meet the numerator
	Step 2 Exclude patients who qualified for the eligible population	criteria as specified in section S.4 above. The numerator includes all
	based on a pregnancy test (Pregnancy Tests Value Set) alone AND	patients in the denominator population who have received chlamydia,
	who meet either of the following: (1) A pregnancy test (Pregnancy	gonorrhea, and syphilis screenings at least once since the diagnosis of
	Test Exclusion Value Set) during the measurement year AND a	HIV/AIDS.
	prescription for isotretinoin (Table CHL-E) on the date of the	Step 4: Calculate the rate by dividing the total from Step 3 by the total
	pregnancy test or the 6 days after the pregnancy test, (2) A	from Step 2.

	0033: Chlamydia Screening in Women (CHL)	0409: HIV/AIDS: Sexually Transmitted Diseases – Screening for
		Chlamydia, Gonorrhea, and Syphilis
	pregnancy test (Pregnancy Test Exclusion Value Set) during the measurement year AND an x-ray (Diagnostic Radiology Value Set) on the date of the pregnancy test or the 6 days after the pregnancy test.  Step 3 Determine the numerator. Determine the number of patients in the remaining eligible population who had at least one chlamydia test (Chlamydia Tests Value Set) during the measurement year.  Step 4 Report two age stratifications (16-20 years and 21-24 years), and a total rate. The total is the sum of the age stratifications. No diagram provided	
Submission items	5.1 Identified measures: 0409 : HIV/AIDS: Sexually Transmitted Diseases – Screening for Chlamydia, Gonorrhea, and Syphilis  5a.1 Are specs completely harmonized? Yes	5.1 Identified measures: 0033 : Chlamydia Screening in Women (CHL) 1395 : Chlamydia Screening and Follow Up 5a.1 Are specs completely harmonized? No
	5a.2 If not completely harmonized, identify difference, rationale, impact: NQF #0409 both address chlamydia screening. However, the measures differ in the target patient populations. NQF #0409 looks for chlamydia screenings among males and females aged 13 and older with a diagnosis of HIV/AIDS. This measures focuses on women aged 16-24 with an indication of sexual activity, which aligns with the U.S. Preventive Services Task Force guideline for chlamydia screening in a general population. The measures are aligned in how they define chlamydia screening.	5a.2 If not completely harmonized, identify difference, rationale, impact: Measures 0033 and 1395 focus on sexually active female adolescents and young adults, while the HIV measure focuses on patients with HIV (both male and female) because patients with HIV are at higher risk for having a comorbid sexually transmitted infection. The frequency of screening also differs – because 0033 focuses on sexually active individuals, the screening frequency is yearly, whereas this measure measures screenings at least once since the diagnosis of HIV.
	5b.1 If competing, why superior or rationale for additive value: NA	5b.1 If competing, why superior or rationale for additive value:

# Comparison of NQF 0304, 0478, and NQF 1731

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
Steward	Vermont Oxford Network	Agency for Healthcare Research and Quality	The Joint Commission
Description	Standardized morbidity ratio and observed minus expected measure for nosocomial bacterial infection after day 3 of life in very low birth weight infants	Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia.	This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).
Туре	Outcome	Outcome	Outcome
Data Source	Electronic Clinical Data: Registry Vermont Oxford Network Database No data collection instrument provided Attachment 0304_ICD_Code_Tables.xlsx	Administrative claims While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM- or ICD-10-CM/PCS coded administrative billing/claims/discharge dataset.  Available at measure-specific web page URL identified in S.1 Attachment	Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		NQI03_Tech_Specs_v6.1alpha_160211xlsx.xl	measure set to hospitals until verification has
		SX	been passed.
			No data collection instrument provided
			Attachment PC04_ICD_Code_Tables.xlsx
Level	Facility	Facility	Facility, Population : National
Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility	Hospital/Acute Care Facility
Numerator	Eligible infants with one or more of the	Discharges, among cases meeting the	The outcome being measured is: Newborns
Statement	following criteria:	inclusion and exclusion rules for the	with septicemia or bacteremia with ICD-10-
	Criterion 1:	denominator, with either:	CM Other Diagnosis Codes for newborn
	Bacterial Pathogen. A bacterial pathogen is	any secondary ICD-9-CM or ICD-10	septicemia or bacteremia as defined in
	recovered from a blood and/or cerebral	CM diagnosis codes for other septicemia; or	Appendix A, Table 11.10 with a Bloodstream
	spinal fluid culture obtained after Day 3 of	any secondary ICD-9-CM or ICD-10	Infection Confirmed OR ICD-10-CM Other
	life.	CM diagnosis codes for newborn septicemia	Diagnosis Codes for sepsis as defined in
	OR	or bacteremia and	Appendix A, Table 11.10.1 with a
	Criterion 2:	any secondary ICD-9-CM or ICD-10	Bloodstream Infection Confirmed available
	Coagulase Negative Staphylococcus. The	CM diagnosis codes for staphylococcal or	at:
	infant has all 3 of the following:	Gram-negative bacterial infection	http://manual.jointcommission.org/releases/
	1. Coagulase negative staphylococcus is		TJC2015B2TJC2016A/
	recovered from a blood culture		The only national hospital quality measure
	obtained from either a central line, or		currently requiring patient-level risk
	peripheral blood sample and/or is		adjustment is the Health Care-Associated
	recovered from cerebrospinal fluid obtained		Bloodstream Infections in Newborns (PC-04)
	by lumbar puncture,		outcome measure in the perinatal care
	ventricular tap or ventricular drain.		measure set.
	2. One or more signs of generalized		
	infection (such as apnea, temperature		
	instability, feeding intolerance, worsening		
	respiratory distress or		

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	hemodynamic instability).  3. Teatment with 5 or more days of intravenous antibiotics after the above cultures were obtained. If the infant died, was discharged, or transferred prior to the completion of 5 days of intravenous antibiotics, this condition would still be met if the intention were to treat for 5 or more days.		
Numerator	Infants whose birth weight is between 401	Please see attached excel file in S.2b. for	Two data elements are used for the observed
Details	and 1500 grams or whose gestational age is between 22 weeks 0 days and 29 weeks 6 days are included if they have coagulase negative staphylococcus or one of the bacterial pathogens listed below after day 3 of life, provided they meet one of the following criteria:  1. They are born at the reporting hospital.  OR  2. They are admitted to any location in the reporting hospital within 28 days of birth, without first having gone home.  Bacterial Pathogens List:  1. Achromobacter species [including Achromobacter xylosoxidans (also known as Alcaligenes xylosoxidans) and others]	version 6.1 alpha specifications.	outcome and to calculate the numerator:  1. Bloodstream Infection Confirmed- Confirmation that a health care-associated bloodstream infection occurred after the first 48 hours after admission.  2. ICD-10-CM Other Diagnosis Codes- The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.  Cases are eligible for the numerator population with ICD-10-CM Other Diagnosis Code for newborn septicemia or bacteremia with the presence of a health care-associated bloodstream infection confirmed OR an ICD-10-CM Other Diagnosis Codes for sepsis with

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
3. Aeromonas species		bloodstream infection confirmed.
4. Alcaligenes species [Alcaligenes		Updates available at:
xylosoxidans and others]		https://manual.jointcommission.org/releases
5. Bacteroides species		/ <del>TJC2015B2</del> <u>TJC2016A</u> /.
6. Burkholderia species [Burkholderia		
capecia and others]		
7. Campylobacter species [Campylobacter		
fetus, C. jejuni and others]		
8. Chryseobacterium species		
9. Citrobacter species [Citrobacter diversus,		
C. freundii, C. koseri and others]		
10. Clostridium species		
11. Enterobacter species [Enterobacter		
aerogenes, E. cloacae, and others]		
12. Enterococcus species [Enterococcus		
faecalis (also known as Streptococcus faecalis), E.faecium, and other		
Enterococcus species]		
13. Escherichia coli		
14. Flavobacterium species		
15. Haemophilus species [Haemophilus		
influenzae and others]		
16. Klebsiella species [Klebsiella oxytoca, K.		
pneumoniae and others]		
17. Listeria monocytogenes		
18. Moraxella species [Moraxella catarrhalis		
(also known as Branhamella		
catarrhalis) and others]		

	0304: Late sepsis or meningitis in Very Low	0478: Neonatal Blood Stream Infection Rate	1731: PC-04 Health Care-Associated
	Birth Weight (VLBW) neonates (risk-	(NQI 03)	Bloodstream Infections in Newborns
	adjusted)		
	19. Neisseria species [Neisseria meningitidis,		
	N. gonorrhoeae and others]		
	20. Pasteurella species		
	21. Prevotella species		
	22. Proteus species [Proteus mirabilis, P.		
	vulgaris and others]		
	23. Providencia species [Providencia		
	rettgeri, and others]		
	24. Pseudomonas species [Pseudomonas		
	aeruginosa and others]		
	25. Ralstonia species		
	26. Salmonella species		
	27. Serratia species [Serratia liquefaciens, S.		
	marcescens and others]		
	28. Staphylococcus coagulase positive		
	[aureus]		
	29. Stenotrophomonas maltophilia		
	30. Streptococcus species [including		
	Streptococcus Group A, Streptococcus		
	Group		
	B, Streptococcus Group D, Streptococcus		
	pneumoniae, Strep milleri and		
	others]		
Denominator	Eligible infants who are in the reporting	All newborns and outborns with either:	The outcome target population being
Statement	hospital after day 3 of life.	a birth weight of 500 to 1,499 grams	measured is: Liveborn newborns with ICD-10-
		(Birth Weight Categories 2, 3, 4 and 5); or	CM Other Diagnosis Codes for birth weight
		any-listed ICD-9-CM or ICD-10 CM	between 500 and 1499g as defined in
		diagnosis codes for gestational age between	Appendix A, Table 11.12, 11.13 or 11.14 OR

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		<ul> <li>a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and death (DISP=20); or</li> <li>a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for operating room procedure; or</li> <li>a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for mechanical ventilation; or</li> <li>a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and transferring from another health care facility within two days of birth See Pediatric Quality Indicators Appendices:</li> <li>Appendix A – Operating Room Procedure Codes</li> <li>Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and Outborn</li> <li>Appendix L – Low Birth Weight Categories</li> </ul>	Birth Weight between 500 and 1499g OR ICD-10-CM Other Diagnosis Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15 or 11.16 OR Birth Weight = > 1500g who experienced one or more of the following:  o Experienced death o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18 o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19 o Transferred in from another acute care hospital or health care setting within 2 days of birth.
Denominator Details	Infants whose birth weights are between 401 and 1500 grams or whose gestational ages are between 22 weeks 0 days and 29	Please see attached excel file in S.2b. for version 6.1 alpha specifications.	Ten data elements are used to identify the target population and to calculate the denominator:

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
weeks 6 days are included if they are in the reporting hospital after day 3 of life, provided they meet one of the following criteria:  1. They are born at the reporting hospital. OR  2. They are admitted to any location in the reporting hospital within 28 days of birth, without first having gone home.		1. Admission Date — The month, day and year of admission to acute inpatient care. 2. Birth Weight- The weight (in grams) of a newborn at the time of delivery. 3. Birthdate - The month, day and year the patient was born. 4. Bloodstream Infection Present on Admission- Documentation in the medical record that the patient had a bloodstream infection present on admission. This includes both patients with positive blood cultures or inconclusive blood cultures when the patient is suspected of having a bloodstream infection or septicemia and is being treated for the condition. Allowable values: Yes or No/UTD 5. Discharge Date — The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay. 6. Discharge Disposition - The place or setting to which the patient was discharged. 7. ICD-10-CM Other Diagnosis Codes - The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization. 8. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		identifies significant procedures performed other than the principal procedure during this hospitalization.
		9. ICD-10-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code
		associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for
		this hospitalization.  10. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases,
		Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The
		principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or
		which is necessary to take care of a complication.  Updates available at:
		https://manual.jointcommission.org/releases /TJC2016A/.Eleven data elements are used to identify the target population and to
		calculate the denominator:  1. Admission Date – The month, day and year
		of admission to acute inpatient care.  2. Birth Weight The weight (in grams) of a newborn at the time of delivery.

0304: Late sepsis or meningitis in Very Low	0478: Neonatal Blood Stream Infection Rate	1731: PC-04 Health Care-Associated
Birth Weight (VLBW) neonates (riskadjusted)	(NQI 03)	Bloodstream Infections in Newborns
		3. Birthdate - The month, day and year the
		<del>patient was born.</del>
		4. Bloodstream Infection Present on
		Admission Documentation in the medical
		record that the patient had a bloodstream
		infection present on admission. This includ
		both patients with positive blood cultures
		inconclusive blood cultures when the patic
		is suspected of having a bloodstream
		infection or septicemia and is being treate
		for the condition. Allowable values: Yes or
		No/UTD
		5. Clinical Trial - Documentation that durin
		this hospital stay the patient was enrolled
		a clinical trial in which patients who are
		newborns were being studied. Allowable
		values: Yes or No/UTD
		6. Discharge Date – The month day and ye
		the patient was discharged from acute car
		left against medical advice or expired duri
		the stay.
		7. Discharge Disposition - The place or sett
		to which the patient was discharged.
		8. ICD-10-CM Other Diagnosis Codes - The
		International Classification of Diseases, Tel
		Revision, Clinical Modification codes
		associated with the secondary diagnoses for
		this hospitalization.

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
			9. ICD 10 PCS Other Procedure Codes The
			International Classification of Diseases, Tenth
			Revision, Procedure Coding System code that
			identifies significant procedures performed
			other than the principal procedure during
			this hospitalization.
			10. ICD-10 CM Principal Diagnosis Code The
			International Classification of Diseases, Tenth
			Revision, Clinical Modification code
			associated with the diagnosis established
			after study to be chiefly responsible for
			occasioning the admission of the patient for
			this hospitalization.
			11. ICD-10 PCS Principal Procedure Code
			The International Classification of Diseases,
			Tenth Revision, Procedure Coding System
			code that identifies the principal procedure
			performed during this hospitalization. The
			principal procedure is the procedure
			performed for definitive treatment rather
			than diagnostic or exploratory purposes, or
			which is necessary to take care of a
			complication.
			Updates available at:
			https://manual.jointcommission.org/releases
			<del>/TJC2015B2/.</del>
Exclusions	Infants who do not meet eligibility criteria	Exclude cases:	ICD-10-CM Principal Diagnosis Code for
	for birth weight, gestational age or hospital	• with a principal ICD-9-CM or ICD-10-	septicemias or bacteremias as defined in

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	admission, or if the infant is discharged home, is transferred or dies prior to day 3 of life.	CM diagnosis code (or secondary diagnosis present on admission†) for sepsis  • with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis or bacteremia  • with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for staphylococcal or Gram-negative bacterial infection  • with birth weight less than 500 grams (Birth Weight Category 1)  • with length of stay less than 3 days  • with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)  † Only for cases that otherwise qualify for the numerator.	Appendix A, Table 11.10.2  • ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as defined in Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Present on Admission  • ICD-10-CM Other Diagnosis Codes for birth weight < 500g as defined in Appendix A, Table 11.20 OR Birth Weight < 500g  • Length of Stay < 2 days  • Enrolled in clinical trials
Exclusion Details	<ol> <li>Any infant who meets neither of the following conditions is excluded:         <ul> <li>Birth weight between 401 and 1500 grams</li> <li>Gestational age between 22 and 29 weeks.</li> </ul> </li> <li>Outborn infants who are admitted to the reporting hospital more than 28 days after birth are excluded.</li> </ol>	Please see attached excel file in S.2b. for version 6.1 alpha specifications.	<ul> <li>Patients with ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias are excluded.</li> <li>Patients with ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias with a Bloodstream Infection Present on Admission are excluded.</li> <li>Patients with ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or</li> </ul>

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	<ol> <li>Outborn infants who have been home prior to admission to the reporting hospital are excluded.</li> <li>Infants discharged home on or before day 3 of life are excluded.</li> <li>Infants who die on or before day 3 of life are excluded.</li> <li>Infants who transfer to another hospital on or before day 3 of life and who are not readmitted to the reporting hospital.</li> <li>Infants who transfer more than once prior to day 3 of life.</li> </ol>		bacteremia with a Bloodstream Infection Present on Admission are excluded.  • Patients with ICD-10-CM Other Diagnosis Codes for birth weight <500 grams OR a birth weight <500 grams are excluded.  • Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is less than 2 days, the patient is excluded.  • Patients are excluded if "Yes" is selected for Clinical Trial.
Risk Adjustment	Statistical risk model Logistic regression with shrinkage estimate - see S. 15a Provided in response box S.15a	Statistical risk model The predicted value for each case is computed using a hierarchical model (logistic regression with hospital random effect) and covariates for gender, birthweight (in 500g groups), modified CMS DRG, congenital anomolies, transfer in status and Major Diagno Available in attached Excel or csv file at S.2b	Statistical risk model Logistic regression Model Risk Factors Considered: Intercept Intercept Birth Weight 1250g to 2499g Birth Weight 1000 to 1249g Birth Weight 500 to 749g Birth Weight 750 to 750g Modified DRG Newborn Transfers Out or Died Congenital Anomaly Gastrointestin Available in attached Excel or csv file at S.2b
Stratification	N/A	Not applicable	Not applicable, the measure is not stratified.
Type Score	Other Standardized morbidity ratio and observed minus expected values with	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk-	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	adjusted)		
	confidence bounds better quality = lower		
	score		
Algorithm	1.Determine the number of infants for a	The observed rate is the number of discharge	1. Start processing. Run cases that are
	reporting period who meet the population	records where the patient experienced the QI	included in the PC-Newborn Initial Patient
	criteria described above. This number is	adverse event divided by the number of	Newborns with BSI and pass the edits define
	termed N.	discharge records at risk for the event. The	in the Transmission Data Processing Flow:
	2.Using the definitions in the Network	expected rate is a comparative rate that	Clinical through this measure.
	Manual of Operations, determine the	incorporates information about a reference	2. Calculate Length of Stay. Length of Stay, i
	number of infants who had nosocomial	population that is not part of the user's input	days, is equal to the Discharge Date minus
	bacterial infection after day 3 of life and	dataset – what rate would be observed if the	the Admission Date.
	prior to discharge home for each of the N	expected level of care observed in the	3. Check Length of Stay
	infants. This is the number of eligible infants	reference population and estimated with risk	a. If Length of Stay is less than 2 days, the
	who were diagnosed as having either	adjustment regression models, were applied	case will proceed to a Measure Category
	coagulase negative staphylococcus and/or a	to the mix of patients with demographic and	Assignment of B and will not be in the
	late bacterial pathogen after day 3 of life.	comorbidity distributions observed in the	measure population. Stop processing.
	The number identified as having nosocomial	user's dataset? The expected rate is	b. If Length of Stay is greater than or equal
	bacterial infection is termed the "observed	calculated only for risk-adjusted indicators.	2 days, continue processing and proceed to ICD-10-CM Principal or Other Diagnosis
	number with infection" or O for short.	The expected rate is estimated for each	Codes.
		· ·	4. Check ICD-10-CM Principal or Other
	3.For each of the N infants, calculate the	person using a generalized estimating	Diagnosis Codes
	expected value of infection by multiplying	equations (GEE) approach to account for	a. If none of the ICD-10-CM Principal or Oth
	the coefficient times its covariate value for	correlation at the hospital or provider level.	Diagnosis Codes is on Table 11.10, continue
	each covariate (coefficients provided on	The risk-adjusted rate is a comparative rate	processing and proceed to ICD-10-CM Other
	request). The covariates include:	that also incorporates information about a	<u>Diagnosis Codes</u>
	Gestational Age in completed weeks (GA)	reference population that is not part of the	1. If all of the ICD-10-CM Other Diagnosis
	GA squared	input dataset – what rate would be observed	Codes are missing or none of the ICD-10-CN
	Small for Gestational Age (data table	if the level of care observed in the user's	Other Diagnosis Codes is on Table 11.10.2,
	provided on request)	dataset were applied to a mix of patients	continue processing and proceed to rechec
	Major birth defect (0=No, 1=Yes)	with demographics and comorbidities	

## 0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (riskadjusted)

0478: Neonatal Blood Stream Infection Rate (NQI 03)

1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

APGAR score at 1 minute (0 to 10)
Birth location (0=Inborn, 1=Outborn)
Multiple gestation (0=No, 1=Yes)
Infant gender (0=Female, 1=Male)
Mode of delivery (0=C-Section, 1=Vaginal)

- 4. Add the expected values for each of the N infants to calculate the number of expected cases of nosocomial bacterial infection. This number is termed the "expected number with infection" or E for short.
- 5. Calculate the standardized morbidity ratio (SMRshrnk) for nosocomial bacterial infection using the values for O and E and applying the estimate for systematic variation (v2), determined from Vermont Oxford Network analyses (provided on request).

SMRshrnk = (O + v2) / (E + v2) with standard error SESMRshrnk=sqrt(1/(E+(1/v2)));

6. Calculate the shrunken, adjusted nosocomial bacterial infection rate (Rateshrnk) and its 95% confidence interval.

Rateshrnk = (SMRshrnk x E) / N with standard error (SERateshrnk) equal to SESMRshrnk x E) / N.

and 95% confidence interval for Rateshrnk

distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user's input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user's dataset if the provider's rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the variance of the estimated rate from the input dataset is large compared with the hospital-to-hospital variance estimated from the reference population. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed rate brings rates toward the mean, and tends to do this more so for outliers (such as rural hospitals). For additional information, please see the supplemental files for the Empirical Methods.

No diagram provided

ICD-10-CM Other Diagnosis Codes (Step 7).2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue

processing and proceed to Bloodstream
Infection Present on Admission.

- b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to Bloodstream Infection Present on Admission.
- <u>5. Check Bloodstream Infection Present on Admission</u>
- a. If Bloodstream Infection Present on Admission is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Bloodstream Infection Present on Admission equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Bloodstream Infection Present on Admission equals No, continue processing and proceed to check ICD-10-CM Other Diagnosis Codes.
- 6. Check ICD-10-CM Other Diagnosis Codes a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).

	1731: PC-04 Health Care-Associated
(NQI 03)	Bloodstream Infections in Newborns
	b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue processing and proceed to Birth Weight. c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 8). 7. Recheck ICD-10-CM Other Diagnosis Codes a. If at least one of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to ICD-10- CM Principal or Other Procedure Codes. b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to Birth Weight. 8. Check Birth Weight a. If Birth Weight is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing. b. If Birth Weight equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. c. If Birth Weight is less than 500, the case will proceed to a Measure Category Assignment of B and will not be in the
	0478: Neonatal Blood Stream Infection Rate (NQI 03)

0304: Late sepsis or meningitis in Very Low	0478: Neonatal Blood Stream Infection Rate	1731: PC-04 Health Care-Associated
Birth Weight (VLBW) neonates (riskadjusted)	(NQI 03)	Bloodstream Infections in Newborns
		continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
		e. If Birth Weight is greater than or equal to 1500, continue processing and proceed to
		ICD-10-PCS Principal or Other Procedure Codes.
		9. Check ICD-10-PCS Principal or Other Procedure Codes
		a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18
		or 11.19, continue processing and proceed to recheck ICD-10-PCS Other Diagnosis Codes
		(Step 13).
		b. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the
		ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue
		processing and proceed to ICD-10-CM Principal Diagnosis Code.
		10. Check ICD-10-CM Principal Diagnosis Code
		a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3, continue processing
		and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
		b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue processing and
		<ul><li>proceed to Discharge Disposition.</li><li>11. Check Discharge Disposition</li></ul>
		a. If Discharge Disposition is missing, the case

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		will proceed to a Measure Category Assignment of X and will be rejected. Stop processing. b. If Discharge Disposition equals 1, 2, 3, 4, 5,
		7, 8, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
		c. If Discharge Disposition equals 6, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
		12. Recheck ICD-10-CM Other Diagnosis Codes a. If at least one of the ICD-10-CM Other
		<u>Diagnosis Codes is on table 11.10, continue</u> <u>processing and proceed to Bloodstream</u> <u>Infection Confirmed.</u> <u>b. If all of the ICD-10-CM Other Diagnosis</u>
		Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to recheck
		ICD-10-CM Other Diagnosis Codes (Step14).  13. Recheck ICD-10-CM Other Diagnosis Codes
		a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, continue processing and proceed to Bloodstream
		<ul> <li>Infection Confirmed.</li> <li>b. If all of the ICD-10-CM Other Diagnosis</li> <li>Codes are missing or none of the ICD-10-CM</li> <li>Other Diagnosis Codes is on table 11.10.1,</li> </ul>

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		the case will proceed to a Measure Category
		Assignment of D and will be in the Measure
		Population. Stop processing.
		14. Check Bloodstream Infection Confirmed
		a. If Bloodstream Infection Confirmed is
		missing, the case will proceed to a Measure
		Category Assignment of X and will be
		rejected. Stop processing.
		b. If Bloodstream Infection Confirmed equals
		Yes, the case will proceed to a Measure
		Category Assignment of E and will be in the
		Numerator Population. Stop processing.
		c. If Bloodstream Infection Confirmed equals
		No, the case will proceed to a Measure
		Category Assignment of D and will be in the
		Measure Population. Stop processing.
		Calculation of adjusted outcome:
		Step 1 Identify the measure population
		through Measure Category Assignments.
		Risk adjusted rate-based measure: Identify
		the numerator (Measure Category
		Assignment = E) and the denominator
		(Measure Category Assignment = D) cases
		using the information provided in the
		Measure Information Form (MIF). Risk
		adjusted continuous variable measure:
		Identify the number of cases in the measure
		population (Measure Category Assignment =
		D). At this time, there are no risk adjusted
		continuous outcome measures in any of the

0304: Late sepsis or meningitis in Very Low	0478: Neonatal Blood Stream Infection Rate	1731: PC-04 Health Care-Associated
Birth Weight (VLBW) neonates (riskadjusted)	(NQI 03)	Bloodstream Infections in Newborns
		national hospital quality measure sets.
		Note: Do not calculate a Predicted Value for a
		case if it is rejected by front-end edits or is
		rejected because one or more measures in
		the measure set evaluates to a Measure
		<u>Category Assignment = X.</u>
		Step 2 Create risk factors for the measure.
		Using the Risk Model Information File
		provided by the Joint Commission, identify a
		applicable EOC record data elements and the
		associated risk factor values for each of the
		EOC records identified instep 1. Risk factors
		include patient demographic and/or clinical
		factors, which can influence outcomes of
		care. Some examples of risk factors include
		age, sex, and comorbidities – such as
		diabetes or a history of hypertension. As an
		example, Figure 1 lists the data elements
		required for risk adjustment of generic
		measure 'ABC'. Using the data for measure
		'ABC', the performance measurement syste
		must identify the risk factors at the EOC
		record-level, and create data subsets for each
		participating hospital. Available at measure-
		specific web page URL identified in S.1 <del>1. Sta</del>
		processing. Run cases that are included in th
		PC-Newborn Initial Patient Newborns with
		BSI and pass the edits defined in the

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		Transmission Data Processing Flow: Clinical
		through this measure.
		2. Calculate Length of Stay. Length of Stay, in
		days, is equal to the Discharge Date minus
		the Admission Date.
		3. Check Length of Stay
		a. If Length of Stay is less than 2 days, the
		case will proceed to a Measure Category
		Assignment of B and will not be in the
		measure population. Stop processing.
		b. If Length of Stay is greater than or equal t
		2 days, continue processing and proceed to
		Clinical Trial.
		4. Check Clinical Trial
		a. If Clinical Trial is missing, the case will
		proceed to a Measure Category Assignment
		of X and will be rejected. Stop processing.
		b. If Clinical Trial equals Yes, the case will
		proceed to a Measure Category Assignment
		of B and will not be in the measure
		population. Stop processing.
		c. If Clinical Trial equals No, continue
		processing and proceed to ICD-10-CM
		Principal or Other Diagnosis Codes.
		5. Check ICD-10 CM Principal or Other
		<del>Diagnosis Codes</del>
		a. If none of the ICD 10 CM Principal or Oth
		Diagnosis Codes is on Table 11.10, continue

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		processing and proceed to ICD-10-CM Other
		<del>Diagnosis Codes</del>
		1. If all of the ICD 10 CM Other Diagnosis
		Codes are missing or none of the ICD-10-CM
		Other Diagnosis Codes is on Table 11.10.2,
		continue processing and proceed to recheck
		ICD-10-CM Other Diagnosis Codes (Step 7).
		2. If at least one of the ICD-10-CM Other
		Diagnosis Codes is on Table 11.10.2, continue
		processing and proceed to Bloodstream
		Infection Present on Admission.
		b. If at least one of the ICD-10-CM Principal
		or Other Diagnosis Codes is on Table 11.10,
		continue processing and proceed to
		Bloodstream Infection Present on Admission.
		6. Check Bloodstream Infection Present on
		Admission
		a. If Bloodstream Infection Present on
		Admission is missing, the case will proceed to
		a Measure Category Assignment of X and will
		be rejected. Stop processing.
		b. If Bloodstream Infection Present on
		Admission equals Yes, the case will proceed
		to a Measure Category Assignment of B and
		will not be in the measure population. Stop
		processing.
		c. If Bloodstream Infection Present on
		Admission equals No, continue processing

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		and proceed to check ICD-10 CM Other
		<del>Diagnosis Codes.</del>
		7. Check ICD-10-CM Other Diagnosis Codes
		a. If at least one of the ICD-10-CM Other
		Diagnosis Codes is on Table 11.12, 11.13,
		11.14, continue processing and proceed to
		recheck ICD-10-CM Other Diagnosis Codes
		(Step 13).
		b. If all of the ICD-10-CM Other Diagnosis
		Codes are missing, continue processing and
		proceed to Birth Weight.
		c. If none of the ICD-10-CM Other Diagnosis
		Codes is on Table 11.12, 11.13, 11.14,
		continue processing and proceed to recheck
		ICD-10-CM Other Diagnosis Codes (Step 8).
		8. Recheck ICD-10-CM Other Diagnosis Codes
		a. If at least one of the ICD-10-CM Other
		Diagnosis Codes on table 11.15, 11.16,
		continue processing and proceed to ICD-10-
		CM Principal or Other Procedure Codes.
		b. If none of the ICD-10-CM Other Diagnosis
		Codes on table 11.15, 11.16, continue
		processing and proceed to Birth Weight.
		9. Check Birth Weight
		a. If Birth Weight is missing, the case will
		proceed to a Measure Category Assignment
		of X and will be rejected. Stop processing.
		b. If Birth Weight equals a Non Unable to

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		Determine Value, the case will proceed to a
		Measure Category Assignment of E and will
		be in the Numerator Population. Stop
		<del>processing.</del>
		c. If Birth Weight is less than 500, the case
		will proceed to a Measure Category
		Assignment of B and will not be in the
		measure population. Stop processing.
		d. If Birth Weight is between 500 and 1499,
		continue processing and proceed to recheck
		ICD 10 CM Other Diagnosis Codes (Step13).
		e. If Birth Weight is greater than or equal to
		1500, continue processing and proceed to
		ICD 10 PCS Principal or Other Procedure
		<del>Codes.</del>
		10. Check ICD-10 PCS Principal or Other
		Procedure Codes
		a. If at least one of the ICD-10-PCS Principal
		or Other Procedure Codes is on table 11.18
		or 11.19, continue processing and proceed to
		recheck ICD-10-PCS Other Diagnosis Codes
		(Step 13).
		b. If all of the ICD-10 PCS Principal or Other
		Procedure Codes are missing or none of the
		ICD 10 PCS Principal or Other Procedure
		Codes is on table 11.18 or 11.19, continue
		processing and proceed to ICD 10 CM
		Principal Diagnosis Code.

0304: Late sepsis or meningitis in Very Low	0478: Neonatal Blood Stream Infection Rate	1731: PC-04 Health Care-Associated
Birth Weight (VLBW) neonates (riskadjusted)	(NQI 03)	Bloodstream Infections in Newborns
		11. Check ICD-10-CM Principal Diagnosis
		Code
		a. If ICD-10-CM Principal Diagnosis Code is
		not on table 11.10.3, continue processing
		and proceed to recheck ICD-10-CM Other
		<del>Diagnosis Codes (Step 13).</del>
		b. If ICD-10-CM Principal Diagnosis Code is
		table 11.10.3, continue processing and
		proceed to Discharge Disposition.
		12. Check Discharge Disposition
		a. If Discharge Disposition is missing, the ca
		will proceed to a Measure Category
		Assignment of X and will be rejected. Stop
		<del>processing.</del>
		b. If Discharge Disposition equals 1, 2, 3, 4,
		7, 8, the case will proceed to a Measure
		Category Assignment of B and will not be in
		the measure population. Stop processing.
		c. If Discharge Disposition equals 6, continu
		processing and proceed to recheck ICD-10
		CM Other Diagnosis Codes (Step13).
		13. Recheck ICD-10-CM Other Diagnosis
		Codes
		a. If at least one of the ICD-10-CM Other
		Diagnosis Codes is on table 11.10, continue
		processing and proceed to Bloodstream
		Infection Confirmed.
		b. If all of the ICD 10 CM Other Diagnosis

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		Codes are missing or none of the ICD-10-CM
		Other Diagnosis Codes is on table 11.10,
		continue processing and proceed to recheck
		ICD-10-CM Other Diagnosis Codes (Step14).
		14. Recheck ICD-10-CM Other Diagnosis
		Codes
		a. If at least one of the ICD-10-CM Other
		Diagnosis Codes is on table 11.10.1, continue
		processing and proceed to Bloodstream
		Infection Confirmed.
		b. If all of the ICD-10-CM Other Diagnosis
		Codes are missing or none of the ICD-10-CM
		Other Diagnosis Codes is on table 11.10.1,
		the case will proceed to a Measure Category
		Assignment of D and will be in the Measure
		Population. Stop processing.
		15. Check Bloodstream Infection Confirmed
		a. If Bloodstream Infection Confirmed is
		missing, the case will proceed to a Measure
		Category Assignment of X and will be
		rejected. Stop processing.
		b. If Bloodstream Infection Confirmed equals
		Yes, the case will proceed to a Measure
		Category Assignment of E and will be in the
		Numerator Population. Stop processing.
		c. If Bloodstream Infection Confirmed equals
		No, the case will proceed to a Measure
		Category Assignment of D and will be in the

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		Measure Population. Stop processing.
		Calculation of adjusted outcome:
		Step 1 Identify the measure population
		through Measure Category Assignments.
		Risk adjusted rate based measure: Identify
		the numerator (Measure Category
		Assignment = E) and the denominator
		(Measure Category Assignment = D) cases
		using the information provided in the
		Measure Information Form (MIF). Risk
		adjusted continuous variable measure:
		Identify the number of cases in the measure
		population (Measure Category Assignment =
		D). At this time, there are no risk adjusted
		continuous outcome measures in any of the
		national hospital quality measure sets.
		Note: Do not calculate a Predicted Value for
		case if it is rejected by front end edits or is
		rejected because one or more measures in
		the measure set evaluates to a Measure
		Category Assignment = X.
		Step 2 - Create risk factors for the measure
		Using the Risk Model Information File
		provided by the Joint Commission, identify a
		applicable EOC record data elements and th
		associated risk factor values for each of the
		EOC records identified instep 1. Risk factors
		include patient demographic and/or clinical

	0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
			factors, which can influence outcomes of
			care. Some examples of risk factors include
			age, sex, and comorbidities – such as
			diabetes or a history of hypertension. As an
			example, Figure 1 lists the data elements
			required for risk adjustment of generic
			measure 'ABC'. Using the data for measure
			'ABC', the performance measurement system must identify the risk factors at the EOC
			record level, and create data subsets for each
			participating hospital. Available at measure-
			specific web page URL identified in S.1
			Specific web page Officialitified in 3.1
Submission	5.1 Identified measures: 0478 : Neonatal	5.1 Identified measures: 1731 : PC-04 Health	5.1 Identified measures: 0304 : Late sepsis or
items	Blood Stream Infection Rate (NQI 03)	Care-Associated Bloodstream Infections in	meningitis in Very Low Birth Weight (VLBW)
	1731 : PC-04 Health Care-Associated	Newborns	neonates (risk-adjusted)
	Bloodstream Infections in Newborns		0478 : Neonatal Blood Stream Infection Rate
		5a.1 Are specs completely harmonized?	(NQI 03)
	5a.1 Are specs completely harmonized? No		
		5a.2 If not completely harmonized, identify	5a.1 Are specs completely harmonized? No
	5a.2 If not completely harmonized, identify	difference, rationale, impact:	
	difference, rationale, impact: The target		5a.2 If not completely harmonized, identify
	populations are different, as are the item	5b.1 If competing, why superior or rationale	difference, rationale, impact: Measure 0304
	definitions and risk adjustment	for additive value: Our understanding is that	addresses infections in the newborn.
	methodology.	The Joint Commission (TJC) intents to submit	Measure 0304 evaluates very low birth
		"Health Care-Associated Bloodstream	weight newborns for both late sepsis and
	5b.1 If competing, why superior or rationale	Infections in Newborns (PC-04)" under the	meningitis with birth weights between 401
	for additive value: N/A	call for measures. In anticipation of this,	and 1500 Gms and a gestational age between

0304: Late sepsis or meningitis Birth Weight (VLBW) neonates	·	ate 1731: PC-04 Health Care-Associated  Bloodstream Infections in Newborns
adjusted)	(100)	bloodstream infections in Newborns
	AHRQ and TJC have agreed to harmonize	our 22 weeks 0 days and 28 weeks six days.
	measures to the extent feasible given	Measure 0304 also evaluates all newborns
	alternative data sources. (The AHRQ QI is	an who are in the hospital after 3 days of birth.
	existing NQF endorsed measure; the TJC	Numerator inclusions for measure 0304 are a
	measure is a newly submitted measure).	bacterial pathogen recovered from a blood
	There are three specification differences	culture and/or cerebrospinal fluid culture
	related to data availability in the TJC meas	sure obtained after Day 3 of life OR all 3 of the
	specification. First, hospitals report to TJC	following: 1.) Coagulase Negative
	the actual birth weight from the medical	Staphylococcus recovered from a blood
	record (rather than coded birth weight us	ing culture from either a central line or
	ICD-9-CM); Second, hospitals report whet	ther peripheral blood sample and/or is recovered
	the patient has a signed consent form for	from cerebrospinal fluid by lumbar puncture,
	participation in a clinical trial. Therefore,	the ventricular tap or ventricular drain 2.) One or
	TJC specification does not include an	more signs of generalized infection (i.e.,
	inclusion criteria related to gestational ago	e as apnea, temperature instability, feeding
	in the AHRQ QI (rather, actual birthweight	t is intolerance, worsening respiratory distress or
	used as an alternative to coded birth weig	ght). hemodynamic instability) and 3.) Treatment
	The TJC also includes an exclusion for	with 5 or more days of intravenous
	enrollment in a clinical trial. The AHRQ QI	I antibiotics. The major differences between
	contains no such exclusion. Finally, TJC	measure 0304 and measure 1731 are: •
	excludes stays of more than 120 days for	Measure 1731 does not include cases
	technical reasons related to the measure	with meningitis based on results from
	reporting period. This rationale does not	cerebrospinal fluid cultures • Measure
	apply to the AHRQ QI, and therefore the	1731 includes birth weights which are 500
	AHRQ QI has no such exclusion.	Gms or more rather than 400 Gms or more,
		and measure 1731 also includes newborns
		1500 gms or more with one or more specific
		medical indication: major surgery,

0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (risk- adjusted)	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		mechanical ventilation, expired or transferred-in. • Measure 1731 excludes newborns born with infections within the first 48 hours of admission and newborns with bloodstream infections occurring after the first 48 hours after birth that are due to causes that are not health care-associated, i.e., necrotizing enterocolitis, urosepsis, etc.
		5b.1 If competing, why superior or rationale for additive value: Measure 0478 is similar to this measure. The fundamental differences are that measure 0478 has been developed to collect all data elements using administrative data. Such an approach has led in some cases to loss of specificity available through review of the medical record. The two measures have been harmonized to the extent possible; however, there are intrinsic differences which are addressed in a comparison table in the attachment found in Section A.1 Supplemental Materials.

Comparison of NQF 0478 and NQF 1731

	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
Steward	Agency for Healthcare Research and Quality	The Joint Commission
Description	Discharges with healthcare-associated blood stream infection per 1,000 discharges for newborns and outborns with birth weight of 500 grams or more but less than 1,500 grams; with gestational age between 24 and 30 weeks; or with birth weight of 1,500 grams or more and death, an operating room procedure, mechanical ventilation, or transferring from another hospital within two days of birth. Excludes discharges with a length of stay less than 3 days and discharges with a principal diagnosis of sepsis, sepsis or bacteremia, or newborn bacteremia.	This measure assesses the number of staphylococcal and gram negative septicemias or bacteremias in high-risk newborns. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).
Туре	Outcome	Outcome
Data Source	Administrative claims While the measure is tested and specified using data from the Healthcare Cost and Utilization Project (HCUP) (see section 1.1 and 1.2 of the measure testing form), the measure specifications and software are specified to be used with any ICD-9-CM- or ICD-10-CM/PCS coded administrative billing/claims/discharge dataset.  Available at measure-specific web page URL identified in S.1 Attachment NQI03_Tech_Specs_v6.1alpha_160211xlsx.xlsx	Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment PC04_ICD_Code_Tables.xlsx
Level	Facility	Facility, Population : National
Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility
Numerator	Discharges, among cases meeting the inclusion and exclusion rules	The outcome being measured is: Newborns with septicemia or
Statement	for the denominator, with either:  • any secondary ICD-9-CM or ICD-10 CM diagnosis codes for other septicemia; or	bacteremia with ICD-10-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Confirmed OR ICD-10-CM Other Diagnosis Codes
	any secondary ICD-9-CM or ICD-10 CM diagnosis codes for	for sepsis as defined in Appendix A, Table 11.10.1 with a Bloodstream

	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
		Newborns
	newborn septicemia or bacteremia and	Infection Confirmed available at:
	any secondary ICD-9-CM or ICD-10 CM diagnosis codes for	http://manual.jointcommission.org/releases/ <del>TJC2015B2</del> TJC2016A/
	staphylococcal or Gram-negative bacterial infection	The only national hospital quality measure currently requiring patient-
		level risk adjustment is the Health Care-Associated Bloodstream
		Infections in Newborns (PC-04) outcome measure in the perinatal care
		measure set.
Numerator	Please see attached excel file in S.2b. for version 6.1 alpha	Two data elements are used for the observed outcome and to calculate
Details	specifications.	the numerator:
		1. Bloodstream Infection Confirmed- Confirmation that a health care-
		associated bloodstream infection occurred after the first 48 hours after
		admission.
		2. ICD-10-CM Other Diagnosis Codes- The International Classification of
		Diseases, Tenth Revision, Clinical Modification codes associated with
		the secondary diagnoses for this hospitalization.
		Cases are eligible for the numerator population with ICD-10-CM Other
		Diagnosis Code for newborn septicemia or bacteremia with the
		presence of a health care-associated bloodstream infection confirmed
		OR an ICD-10-CM Other Diagnosis Codes for sepsis with the presence of
		a health care-associated bloodstream infection confirmed.
		Updates available at:
		https://manual.jointcommission.org/releases/ <del>TJC2015B2</del> <u>TJC2016A</u> /.
Denominat	All newborns and outborns with either:	The outcome target population being measured is: Liveborn newborns
or	• a birth weight of 500 to 1,499 grams (Birth Weight Categories	with ICD-10-CM Other Diagnosis Codes for birth weight between 500
Statement	2, 3, 4 and 5); or	and 1499g as defined in Appendix A, Table 11.12, 11.13 or 11.14 OR
	any-listed ICD-9-CM or ICD-10 CM diagnosis codes for	Birth Weight between 500 and 1499g OR ICD-10-CM Other Diagnosis
	gestational age between 24 and 30 weeks; or	Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15
	a birth weight greater than or equal to 1,500 grams (Birth)	or 11.16 OR Birth Weight = > 1500g who experienced one or more of
	Weight Category 6, 7, 8, or 9) and death (DISP=20); or	the following:
	a birth weight greater than or equal to 1,500 grams (Birth	o Experienced death

	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	<ul> <li>Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for operating room procedure; or</li> <li>a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and any-listed ICD-9-CM or ICD-10 PCS procedure codes for mechanical ventilation; or</li> <li>a birth weight greater than or equal to 1,500 grams (Birth Weight Category 6, 7, 8, or 9) and transferring from another health care facility within two days of birth</li> <li>See Pediatric Quality Indicators Appendices:</li> <li>Appendix A – Operating Room Procedure Codes</li> <li>Appendix I – Definitions of Neonate, Newborn, Normal Newborn, and Outborn</li> <li>Appendix L – Low Birth Weight Categories</li> </ul>	o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18 o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19 o Transferred in from another acute care hospital or health care setting within 2 days of birth.
Denominat or Details	Please see attached excel file in S.2b. for version 6.1 alpha specifications.	Ten data elements are used to identify the target population and to calculate the denominator:  1. Admission Date – The month, day and year of admission to acute inpatient care.  2. Birth Weight- The weight (in grams) of a newborn at the time of delivery.  3. Birthdate - The month, day and year the patient was born.  4. Bloodstream Infection Present on Admission- Documentation in the medical record that the patient had a bloodstream infection present on admission. This includes both patients with positive blood cultures or inconclusive blood cultures when the patient is suspected of having a bloodstream infection or septicemia and is being treated for the condition. Allowable values: Yes or No/UTD  5. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.  6. Discharge Disposition - The place or setting to which the patient was

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
	Newborns
	discharged.
	7. ICD-10-CM Other Diagnosis Codes - The International Classification of
	Diseases, Tenth Revision, Clinical Modification codes associated with
	the secondary diagnoses for this hospitalization.
	8. ICD-10-PCS Other Procedure Codes - The International Classification
	of Diseases, Tenth Revision, Procedure Coding System code that
	identifies significant procedures performed other than the principal
	procedure during this hospitalization.
	9. ICD-10-CM Principal Diagnosis Code - The International Classification
	of Diseases, Tenth Revision, Clinical Modification code associated with
	the diagnosis established after study to be chiefly responsible for
	occasioning the admission of the patient for this hospitalization.
	10. ICD-10-PCS Principal Procedure Code - The International
	Classification of Diseases, Tenth Revision, Procedure Coding System
	code that identifies the principal procedure performed during this
	hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or
	which is necessary to take care of a complication.
	Updates available at:
	https://manual.jointcommission.org/releases/TJC2016A/. Eleven data elements are used to identify the target population and to calculate the
	, 5 1 1
	denominator:
	1. Admission Date – The month, day and year of admission to acute
	inpatient care.
	2. Birth Weight- The weight (in grams) of a newborn at the time of
	<del>delivery.</del>
	3. Birthdate - The month, day and year the patient was born.
	4. Bloodstream Infection Present on Admission- Documentation in the
	medical record that the patient had a bloodstream infection present on
	admission. This includes both patients with positive blood cultures or

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
	Newborns
	inconclusive blood cultures when the patient is suspected of having a
	bloodstream infection or septicemia and is being treated for the
	condition. Allowable values: Yes or No/UTD
	5. Clinical Trial - Documentation that during this hospital stay the
	patient was enrolled in a clinical trial in which patients who are
	newborns were being studied. Allowable values: Yes or No/UTD
	6. Discharge Date – The month day and year the patient was discharged
	from acute care, left against medical advice or expired during the stay.
	7. Discharge Disposition The place or setting to which the patient was
	<del>discharged.</del>
	8. ICD-10-CM Other Diagnosis Codes - The International Classification of
	Diseases, Tenth Revision, Clinical Modification codes associated with
	the secondary diagnoses for this hospitalization.
	9. ICD-10-PCS Other Procedure Codes - The International Classification
	of Diseases, Tenth Revision, Procedure Coding System code that
	identifies significant procedures performed other than the principal
	procedure during this hospitalization.
	10. ICD-10-CM Principal Diagnosis Code The International
	Classification of Diseases, Tenth Revision, Clinical Modification code
	associated with the diagnosis established after study to be chiefly
	responsible for occasioning the admission of the patient for this
	hospitalization.
	11. ICD-10-PCS Principal Procedure Code - The International
	Classification of Diseases, Tenth Revision, Procedure Coding System
	code that identifies the principal procedure performed during this
	hospitalization. The principal procedure is the procedure performed for
	definitive treatment rather than diagnostic or exploratory purposes, or
	which is necessary to take care of a complication.
	<del>Updates available at:</del>

	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		https://manual.jointcommission.org/releases/TJC2015B2/.
Exclusions	<ul> <li>Exclude cases:</li> <li>with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis</li> <li>with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for sepsis or bacteremia</li> <li>with a principal ICD-9-CM or ICD-10-CM diagnosis code (or secondary diagnosis present on admission†) for staphylococcal or Gram-negative bacterial infection</li> <li>with birth weight less than 500 grams (Birth Weight Category 1)</li> <li>with length of stay less than 3 days</li> <li>with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)</li> <li>† Only for cases that otherwise qualify for the numerator.</li> </ul>	<ul> <li>ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias as defined in Appendix A, Table 11.10.2</li> <li>ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as defined in Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Present on Admission</li> <li>ICD-10-CM Other Diagnosis Codes for birth weight &lt; 500g as defined in Appendix A, Table 11.20 OR Birth Weight &lt; 500g</li> <li>Length of Stay &lt; 2 days</li> <li>Enrolled in clinical trials</li> </ul>
Exclusion	Please see attached excel file in S.2b. for version 6.1 alpha	Patients with ICD-10-CM Principal Diagnosis Code for septicemias or
Details	specifications.	bacteremias are excluded.
		<ul> <li>Patients with ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias with a Bloodstream Infection Present on Admission are excluded.</li> <li>Patients with ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia with a Bloodstream Infection Present on Admission are excluded.</li> <li>Patients with ICD-10-CM Other Diagnosis Codes for birth weight &lt;500 grams OR a birth weight &lt;500 grams are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is less than 2 days, the patient is excluded.</li> <li>Patients are excluded if "Yes" is selected for Clinical Trial.</li> </ul>

	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
		Newborns
Risk	Statistical risk model	Statistical risk model
Adjustment	The predicted value for each case is computed using a hierarchical	Logistic regression
	model (logistic regression with hospital random effect) and covariates	Model Risk Factors Considered:
	for gender, birthweight (in 500g groups), modified CMS DRG,	Intercept Intercept
	congenital anomolies, transfer in status and Major Diagno	Birth Weight 1250g to 2499g
	Available in attached Excel or csv file at S.2b	Birth Weight 1000 to 1249g
		Birth Weight 500 to 749g
		Birth Weight 750 to 750g
		Modified DRG Newborn Transfers Out or Died
		Congenital Anomaly Gastrointestin
		Available in attached Excel or csv file at S.2b
Stratificatio	Not applicable	Not applicable, the measure is not stratified.
n		
Type Score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score
Algorithm	The observed rate is the number of discharge records where the	1. Start processing. Run cases that are included in the PC-Newborn
	patient experienced the QI adverse event divided by the number of	<u>Initial Patient Newborns with BSI and pass the edits defined in the</u>
	discharge records at risk for the event. The expected rate is a	<u>Transmission Data Processing Flow: Clinical through this measure.</u>
	comparative rate that incorporates information about a reference	2. Calculate Length of Stay. Length of Stay, in days, is equal to the
	population that is not part of the user's input dataset – what rate	<u>Discharge Date minus the Admission Date.</u>
	would be observed if the expected level of care observed in the	3. Check Length of Stay
	reference population and estimated with risk adjustment regression	a. If Length of Stay is less than 2 days, the case will proceed to a
	models, were applied to the mix of patients with demographic and	Measure Category Assignment of B and will not be in the measure
	comorbidity distributions observed in the user's dataset? The	population. Stop processing.
	expected rate is calculated only for risk-adjusted indicators.	b. If Length of Stay is greater than or equal to 2 days, continue
	The expected rate is estimated for each person using a generalized	processing and proceed to ICD-10-CM Principal or Other Diagnosis Codes.
	estimating equations (GEE) approach to account for correlation at the	4. Check ICD-10-CM Principal or Other Diagnosis Codes
	hospital or provider level.	a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on
	The risk-adjusted rate is a comparative rate that also incorporates	Table 11.10, continue processing and proceed to ICD-10-CM Other
	information about a reference population that is not part of the input	Table 22:23, continue processing and proceed to less 10 cm other

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dataset – what rate would be observed if the level of care observed in the user's dataset were applied to a mix of patients with demographics and comorbidities distributed like the reference population? The risk adjusted rate is calculated using the indirect method as observed rate divided by expected rate multiplied by the reference population rate. The smoothed rate is the weighted average of the risk-adjusted rate from the user's input dataset and the rate observed in the reference population; the smoothed rate is calculated with a shrinkage estimator to result in a rate near that from the user's dataset if the provider's rate is estimated in a stable fashion with minimal noise, or to result in a rate near that of the reference population if the variance of the estimated rate from the input dataset is large compared with the hospital-to-hospital variance estimated from the reference population. Thus, the smoothed rate is a weighted average of the risk-adjusted rate and the reference population rate, where the weight is the signal-to-noise ratio. In practice, the smoothed rate brings rates toward the mean, and tends to do this more so for outliers (such as rural hospitals). For additional information, please see the supplemental files for the Empirical Methods. No diagram provided

## 1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

## **Diagnosis Codes**

- 1. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 7).
- 2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue processing and proceed to Bloodstream Infection Present on Admission.
- <u>b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.10, continue processing and proceed to Bloodstream Infection Present on Admission.</u>
- 5. Check Bloodstream Infection Present on Admission
- <u>a. If Bloodstream Infection Present on Admission is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</u>
- b. If Bloodstream Infection Present on Admission equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Bloodstream Infection Present on Admission equals No, continue processing and proceed to check ICD-10-CM Other Diagnosis Codes.
- 6. Check ICD-10-CM Other Diagnosis Codes
- a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
- b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue processing and proceed to Birth Weight.
- c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 8).
- 7. Recheck ICD-10-CM Other Diagnosis Codes

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
	Newborns
	a. If at least one of the ICD-10-CM Other Diagnosis Codes on table
	11.15, 11.16, continue processing and proceed to ICD-10-CM Principal or Other Procedure Codes.
	b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16, continue processing and proceed to Birth Weight.
	8. Check Birth Weight
	a. If Birth Weight is missing, the case will proceed to a Measure
	Category Assignment of X and will be rejected. Stop processing.
	b. If Birth Weight equals a Non Unable to Determine Value, the case
	will proceed to a Measure Category Assignment of E and will be in the
	Numerator Population. Stop processing.
	c. If Birth Weight is less than 500, the case will proceed to a Measure
	Category Assignment of B and will not be in the measure population.
	Stop processing.
	d. If Birth Weight is between 500 and 1499, continue processing and
	proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
	e. If Birth Weight is greater than or equal to 1500, continue processing
	and proceed to ICD-10-PCS Principal or Other Procedure Codes.
	9. Check ICD-10-PCS Principal or Other Procedure Codes
	a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes
	is on table 11.18 or 11.19, continue processing and proceed to recheck
	ICD-10-PCS Other Diagnosis Codes (Step 13).
	b. If all of the ICD-10-PCS Principal or Other Procedure Codes are
	missing or none of the ICD-10-PCS Principal or Other Procedure Codes
	is on table 11.18 or 11.19, continue processing and proceed to ICD-10-
	CM Principal Diagnosis Code.
	10. Check ICD-10-CM Principal Diagnosis Code
	a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3,
	continue processing and proceed to recheck ICD-10-CM Other
	<u>Diagnosis Codes (Step 13).</u>

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
	Newborns
	b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue
	processing and proceed to Discharge Disposition.
	11. Check Discharge Disposition
	a. If Discharge Disposition is missing, the case will proceed to a
	Measure Category Assignment of X and will be rejected. Stop
	processing.
	b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed
	to a Measure Category Assignment of B and will not be in the measure
	population. Stop processing.
	c. If Discharge Disposition equals 6, continue processing and proceed to
	recheck ICD-10-CM Other Diagnosis Codes (Step13).
	12. Recheck ICD-10-CM Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table
	11.10, continue processing and proceed to Bloodstream Infection
	Confirmed.
	b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of
	the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue
	processing and proceed to recheck ICD-10-CM Other Diagnosis Codes
	(Step14).
	13. Recheck ICD-10-CM Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table
	11.10.1, continue processing and proceed to Bloodstream Infection
	Confirmed.
	b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of
	the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will
	proceed to a Measure Category Assignment of D and will be in the
	Measure Population. Stop processing.
	14. Check Bloodstream Infection Confirmed
	a. If Bloodstream Infection Confirmed is missing, the case will proceed
	to a Measure Category Assignment of X and will be rejected. Stop

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
	Newborns
	processing.
	b. If Bloodstream Infection Confirmed equals Yes, the case will proceed
	to a Measure Category Assignment of E and will be in the Numerator
	Population. Stop processing.
	c. If Bloodstream Infection Confirmed equals No, the case will proceed
	to a Measure Category Assignment of D and will be in the Measure
	Population. Stop processing.
	<u>Calculation of adjusted outcome:</u>
	Step 1 Identify the measure population through Measure Category
	Assignments.
	Risk adjusted rate-based measure: Identify the numerator (Measure
	Category Assignment = E) and the denominator (Measure Category
	Assignment = D) cases using the information provided in the Measure
	Information Form (MIF). Risk adjusted continuous variable measure:
	Identify the number of cases in the measure population (Measure
	<u>Category Assignment = D). At this time, there are no risk adjusted</u>
	continuous outcome measures in any of the national hospital quality
	<u>measure sets.</u>
	Note: Do not calculate a Predicted Value for a case if it is rejected by
	<u>front-end edits or is</u>
	rejected because one or more measures in the measure set evaluates
	to a Measure Category Assignment = X.
	Step 2 Create risk factors for the measure.
	Using the Risk Model Information File provided by the Joint
	Commission, identify all applicable EOC record data elements and the
	associated risk factor values for each of the EOC records identified
	instep 1. Risk factors include patient demographic and/or clinical
	factors, which can influence outcomes of care. Some examples of risk
	factors include age, sex, and comorbidities – such as diabetes or a
	history of hypertension. As an example, Figure 1 lists the data elements

0478: Neonatal Blood Stream Infection Rate (NQI 03	
	Newborns
	required for risk adjustment of generic measure 'ABC'. Using the data
	for measure 'ABC', the performance measurement system must
	identify the risk factors at the EOC record-level, and create data subsets
	for each participating hospital. Available at measure-specific web page
	URL identified in S.11. Start processing. Run cases that are included in
	the PC Newborn Initial Patient Newborns with BSI and pass the edits
	defined in the Transmission Data Processing Flow: Clinical through this
	measure.
	2. Calculate Length of Stay. Length of Stay, in days, is equal to the
	Discharge Date minus the Admission Date.
	3. Check Length of Stay
	a. If Length of Stay is less than 2 days, the case will proceed to a
	Measure Category Assignment of B and will not be in the measure
	population. Stop processing.
	b. If Length of Stay is greater than or equal to 2 days, continue
	processing and proceed to Clinical Trial.
	4. Check Clinical Trial
	a. If Clinical Trial is missing, the case will proceed to a Measure
	Category Assignment of X and will be rejected. Stop processing.
	b. If Clinical Trial equals Yes, the case will proceed to a Measure
	Category Assignment of B and will not be in the measure population.
	Stop processing.
	c. If Clinical Trial equals No, continue processing and proceed to ICD-10-
	CM Principal or Other Diagnosis Codes.
	5. Check ICD-10-CM Principal or Other Diagnosis Codes
	a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on
	Table 11.10, continue processing and proceed to ICD-10-CM Other
	<del>Diagnosis Codes</del>
	1. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue
	processing and proceed to recheck ICD-10-CM-Other Diagnosis Codes (Step 7).
	2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table
	11.10.2, continue processing and proceed to Bloodstream Infection
	Present on Admission.
	b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is
	on Table 11.10, continue processing and proceed to Bloodstream
	Infection Present on Admission.
	6. Check Bloodstream Infection Present on Admission
	a. If Bloodstream Infection Present on Admission is missing, the case
	will proceed to a Measure Category Assignment of X and will be
	rejected. Stop processing.
	b. If Bloodstream Infection Present on Admission equals Yes, the case
	will proceed to a Measure Category Assignment of B and will not be in
	the measure population. Stop processing.
	c. If Bloodstream Infection Present on Admission equals No, continue
	processing and proceed to check ICD-10-CM Other Diagnosis Codes.
	7. Check ICD-10-CM Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table
	11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-
	10-CM Other Diagnosis Codes (Step 13).
	b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue
	processing and proceed to Birth Weight.
	c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12,
	11.13, 11.14, continue processing and proceed to recheck ICD-10-CM
	Other Diagnosis Codes (Step 8).
	8. Recheck ICD-10-CM Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes on table

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	11.15, 11.16, continue processing and proceed to ICD-10-CM Principal
	or Other Procedure Codes.
	b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15,
	11.16, continue processing and proceed to Birth Weight.
	9. Check Birth Weight
	a. If Birth Weight is missing, the case will proceed to a Measure
	Category Assignment of X and will be rejected. Stop processing.
	b. If Birth Weight equals a Non Unable to Determine Value, the case
	will proceed to a Measure Category Assignment of E and will be in the
	Numerator Population. Stop processing.
	c. If Birth Weight is less than 500, the case will proceed to a Measure
	Category Assignment of B and will not be in the measure population.
	Stop processing.
	d. If Birth Weight is between 500 and 1499, continue processing and
	proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
	e. If Birth Weight is greater than or equal to 1500, continue processing
	and proceed to ICD-10-PCS Principal or Other Procedure Codes.
	10. Check ICD-10-PCS Principal or Other Procedure Codes
	a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes
	is on table 11.18 or 11.19, continue processing and proceed to recheck
	ICD-10-PCS Other Diagnosis Codes (Step 13).
	b. If all of the ICD-10-PCS Principal or Other Procedure Codes are
	missing or none of the ICD-10-PCS Principal or Other Procedure Codes
	is on table 11.18 or 11.19, continue processing and proceed to ICD-10-
	CM Principal Diagnosis Code.
	11. Check ICD-10-CM Principal Diagnosis Code
	a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3,
	continue processing and proceed to recheck ICD-10-CM Other
	<del>Diagnosis Codes (Step 13).</del>

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
	Newborns
	b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue
	processing and proceed to Discharge Disposition.
	12. Check Discharge Disposition
	a. If Discharge Disposition is missing, the case will proceed to a
	Measure Category Assignment of X and will be rejected. Stop
	<del>processing.</del>
	b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed
	to a Measure Category Assignment of B and will not be in the measure
	population. Stop processing.
	c. If Discharge Disposition equals 6, continue processing and proceed to
	recheck ICD-10-CM Other Diagnosis Codes (Step13).
	13. Recheck ICD-10-CM Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table
	11.10, continue processing and proceed to Bloodstream Infection
	Confirmed.
	b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of
	the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue
	processing and proceed to recheck ICD-10-CM Other Diagnosis Codes
	(Step14).
	14. Recheck ICD-10-CM Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table
	11.10.1, continue processing and proceed to Bloodstream Infection
	Confirmed.
	b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of
	the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will
	proceed to a Measure Category Assignment of D and will be in the
	Measure Population. Stop processing.
	15. Check Bloodstream Infection Confirmed
	a. If Bloodstream Infection Confirmed is missing, the case will proceed

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	to a Measure Category Assignment of X and will be rejected. Stop
	processing.
	b. If Bloodstream Infection Confirmed equals Yes, the case will proceed
	to a Measure Category Assignment of E and will be in the Numerator
	Population. Stop processing.
	c. If Bloodstream Infection Confirmed equals No, the case will proceed
	to a Measure Category Assignment of D and will be in the Measure
	Population. Stop processing.
	Calculation of adjusted outcome:
	Step 1 Identify the measure population through Measure Category
	Assignments.
	Risk adjusted rate based measure: Identify the numerator (Measure
	Category Assignment = E) and the denominator (Measure Category
	Assignment = D) cases using the information provided in the Measure
	Information Form (MIF). Risk adjusted continuous variable measure:
	Identify the number of cases in the measure population (Measure
	Category Assignment = D). At this time, there are no risk adjusted
	continuous outcome measures in any of the national hospital quality
	measure sets.
	Note: Do not calculate a Predicted Value for a case if it is rejected by
	front end edits or is
	rejected because one or more measures in the measure set evaluates
	to a Measure Category Assignment = X.
	Step 2 - Create risk factors for the measure.
	Using the Risk Model Information File provided by the Joint
	Commission, identify all applicable EOC record data elements and the
	associated risk factor values for each of the EOC records identified
	instep 1. Risk factors include patient demographic and/or clinical
	factors, which can influence outcomes of care. Some examples of risk

	0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in
		Newborns
		factors include age, sex, and comorbidities – such as diabetes or a
		history of hypertension. As an example, Figure 1 lists the data elements
		required for risk adjustment of generic measure 'ABC'. Using the data
		for measure 'ABC', the performance measurement system must
		identify the risk factors at the EOC record-level, and create data subsets
		for each participating hospital. Available at measure-specific web page
		URL identified in S.1
Submission	5.1 Identified measures: 1731 : PC-04 Health Care-Associated	5.1 Identified measures: 0304 : Late sepsis or meningitis in Very Low
items	Bloodstream Infections in Newborns	Birth Weight (VLBW) neonates (risk-adjusted)
		0478 : Neonatal Blood Stream Infection Rate (NQI 03)
	5a.1 Are specs completely harmonized?	
		5a.1 Are specs completely harmonized? No
	5a.2 If not completely harmonized, identify difference, rationale,	
	impact:	5a.2 If not completely harmonized, identify difference, rationale,
		impact: Measure 0304 addresses infections in the newborn. Measure
	5b.1 If competing, why superior or rationale for additive value: Our	0304 evaluates very low birth weight newborns for both late sepsis and
	understanding is that The Joint Commission (TJC) intents to submit	meningitis with birth weights between 401 and 1500 Gms and a
	"Health Care-Associated Bloodstream Infections in Newborns (PC-	gestational age between 22 weeks 0 days and 28 weeks six days.
	04)" under the call for measures. In anticipation of this, AHRQ and	Measure 0304 also evaluates all newborns who are in the hospital after
	TJC have agreed to harmonize our measures to the extent feasible	3 days of birth. Numerator inclusions for measure 0304 are a bacterial
	given alternative data sources. (The AHRQ QI is an existing NQF	pathogen recovered from a blood culture and/or cerebrospinal fluid
	endorsed measure; the TJC measure is a newly submitted measure).	culture obtained after Day 3 of life OR all 3 of the following: 1.)
	There are three specification differences related to data availability in	Coagulase Negative Staphylococcus recovered from a blood culture
	the TJC measure specification. First, hospitals report to TJC the actual	from either a central line or peripheral blood sample and/or is
	birth weight from the medical record (rather than coded birth weight	recovered from cerebrospinal fluid by lumbar puncture, ventricular tap
	using ICD-9-CM); Second, hospitals report whether the patient has a	or ventricular drain 2.) One or more signs of generalized infection (i.e.,
	signed consent form for participation in a clinical trial. Therefore, the	apnea, temperature instability, feeding intolerance, worsening
	TJC specification does not include an inclusion criteria related to	respiratory distress or hemodynamic instability) and 3.) Treatment with
	gestational age as in the AHRQ QI (rather, actual birthweight is used	5 or more days of intravenous antibiotics. The major differences

0478: Neonatal Blood Stream Infection Rate (NQI 03)	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
as an alternative to coded birth weight). The TJC also includes an exclusion for enrollment in a clinical trial. The AHRQ QI contains no such exclusion. Finally, TJC excludes stays of more than 120 days for technical reasons related to the measure reporting period. This rationale does not apply to the AHRQ QI, and therefore the AHRQ QI has no such exclusion.	between measure 0304 and measure 1731 are:   Measure 1731 does not include cases with meningitis based on results from cerebrospinal fluid cultures   Measure 1731 includes birth weights which are 500 Gms or more rather than 400 Gms or more, and measure 1731 also includes newborns 1500 gms or more with one or more specific medical indication: major surgery, mechanical ventilation, expired or transferred-in.   Measure 1731 excludes newborns born with infections within the first 48 hours of admission and newborns with bloodstream infections occurring after the first 48 hours after birth that are due to causes that are not health care-associated, i.e., necrotizing enterocolitis, urosepsis, etc.
	5b.1 If competing, why superior or rationale for additive value: Measure 0478 is similar to this measure. The fundamental differences are that measure 0478 has been developed to collect all data elements using administrative data. Such an approach has led in some cases to loss of specificity available through review of the medical record. The two measures have been harmonized to the extent possible; however, there are intrinsic differences which are addressed in a comparison table in the attachment found in Section A.1 Supplemental Materials.

# Comparison of NQF 0480 and NQF 1731

	0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
Steward	The Joint Commission	The Joint Commission
Description	PC-05 assesses the number of newborns exclusively fed breast milk	This measure assesses the number of staphylococcal and gram negative
	during the newborn's entire hospitalization. This measure is a part	septicemias or bacteremias in high-risk newborns. This measure is a part
	of a set of five nationally implemented measures that address	of a set of five nationally implemented measures that address perinatal

	0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns).	care (PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).
Туре	Process	Outcome
Data Source	Electronic Clinical Data, Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment PC05_ICD_Code_Tables.xlsx	Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment PCO4_ICD_Code_Tables.xlsx
Level	Facility, Population : National	Facility, Population : National
Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility
Numerator Statement	Newborns that were fed breast milk only since birth	The outcome being measured is: Newborns with septicemia or bacteremia with ICD-10-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 with a Bloodstream Infection Confirmed OR ICD-10-CM Other Diagnosis Codes for sepsis as defined in Appendix A, Table 11.10.1 with a Bloodstream Infection Confirmed available at: http://manual.jointcommission.org/releases/TJC2015B2TJC2016A/ The only national hospital quality measure currently requiring patient-level risk adjustment is the Health Care-Associated Bloodstream Infections in Newborns (PC-04) outcome measure in the perinatal care measure set.
Numerator	One data element is used to calculate the numerator:	Two data elements are used for the observed outcome and to calculate

	0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
Details	1. Exclusive Breast Milk Feeding - Documentation that the newborn was exclusively fed breast milk during the entire hospitalization. Allowable Values: Yes or No/UTD. Cases are eligible for the numerator when allowable value = yes. Updates available at: http://manual.jointcommission.org/releases/TJC2015B2/	the numerator:  1. Bloodstream Infection Confirmed- Confirmation that a health careassociated bloodstream infection occurred after the first 48 hours after admission.  2. ICD-10-CM Other Diagnosis Codes- The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.  Cases are eligible for the numerator population with ICD-10-CM Other Diagnosis Code for newborn septicemia or bacteremia with the presence of a health care-associated bloodstream infection confirmed OR an ICD-10-CM Other Diagnosis Codes for sepsis with the presence of a health care-associated bloodstream infection confirmed.  Updates available at:
Denominat or Statement	Single term liveborn newborns discharged alive from the hospital with ICD-10-CM Principal Diagnosis Code for single liveborn newborn as defined in Appendix A, Table 11.20.1 available at: http://manual.jointcommission.org/releases/TJC2016A/Single term liveborn newborns discharged alive from the hospital with ICD-10-CM Principal Diagnosis Code for single liveborn newborn as defined in Appendix A, Table 11.20.1 available at: http://manual.jointcommission.org/releases/TJC2015B2/	https://manual.jointcommission.org/releases/TJC2015B2TJC2016A/.  The outcome target population being measured is: Liveborn newborns with ICD-10-CM Other Diagnosis Codes for birth weight between 500 and 1499g as defined in Appendix A, Table 11.12, 11.13 or 11.14 OR Birth Weight between 500 and 1499g OR ICD-10-CM Other Diagnosis Codes for birth weight = > 1500g as defined in Appendix A, Table 11.15 or 11.16 OR Birth Weight = > 1500g who experienced one or more of the following: o Experienced death o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18 o ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for mechanical ventilation as defined in Appendix A, Table 11.19 o Transferred in from another acute care hospital or health care setting within 2 days of birth.
Denominat or Details	Ten data elements are used to calculate the denominator:  1. Admission Date – The month, day and year of admission to acute	Ten data elements are used to identify the target population and to calculate the denominator:

### 0480: PC-05 Exclusive Breast Milk Feeding

#### inpatient care.

- 2. Admission to NICU Documentation that the newborn was admitted to the Neonatal Intensive Care Unit (NICU) at this hospital any time during the hospitalization. Allowable values: Yes or No/UTD
- 3. Birthdate The month, day and year the patient was born.
- <u>4. Discharge Date The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.</u>
- <u>5. Discharge Disposition The place or setting to which the patient</u> was discharged.
- 6. ICD-10-CM Other Diagnosis Codes The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
- 7. ICD-10-PCS Other Procedure Codes The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
- 8. ICD-10-CM Principal Diagnosis Code The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
- 9. ICD-10-CM Principal Procedure Code The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to take care of a complication.

#### 1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

- <u>1. Admission Date The month, day and year of admission to acute inpatient care.</u>
- 2. Birth Weight- The weight (in grams) of a newborn at the time of delivery.
- 3. Birthdate The month, day and year the patient was born.
- 4. Bloodstream Infection Present on Admission- Documentation in the medical record that the patient had a bloodstream infection present on admission. This includes both patients with positive blood cultures or inconclusive blood cultures when the patient is suspected of having a bloodstream infection or septicemia and is being treated for the condition. Allowable values: Yes or No/UTD
- <u>5. Discharge Date The month day and year the patient was discharged</u> from acute care, left against medical advice or expired during the stay.
- <u>6. Discharge Disposition The place or setting to which the patient was discharged.</u>
- 7. ICD-10-CM Other Diagnosis Codes The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
- 8. ICD-10-PCS Other Procedure Codes The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.
- 9. ICD-10-CM Principal Diagnosis Code The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
- 10. ICD-10-PCS Principal Procedure Code The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to

### 0480: PC-05 Exclusive Breast Milk Feeding

10. Term Newborn - Documentation that the newborn was at term or >= 37 completed weeks of gestation at the time of birth.

Allowable values: Yes or No/UTD

Updates available at:

http://manual.jointcommission.org/releases/TJC2016A/Eleven data elements are used to calculate the denominator:

- 1. Admission Date The month, day and year of admission to acute inpatient care.
- 2. Admission to NICU Documentation that the newborn was admitted to the Neonatal Intensive Care Unit (NICU) at this hospital any time during the hospitalization. Allowable values: Yes or No/UTD
- 3. Birthdate The month, day and year the patient was born.
- 4. Clinical Trial Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients who are newborns were being studied. Allowable values: Yes or No/UTD
- 5. Discharge Date The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
- 6. Discharge Disposition The place or setting to which the patient was discharged.
- 7. ICD-10-CM Other Diagnosis Codes The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
- 8. ICD-10-PCS Other Procedure Codes The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.

#### 1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

take care of a complication.

Updates available at:

https://manual.jointcommission.org/releases/TJC2016A/.Eleven data elements are used to identify the target population and to calculate the denominator:

- 1. Admission Date The month, day and year of admission to acute inpatient care.
- 2. Birth Weight- The weight (in grams) of a newborn at the time of delivery.
- 3. Birthdate The month, day and year the patient was born.
- 4. Bloodstream Infection Present on Admission- Documentation in the medical record that the patient had a bloodstream infection present on admission. This includes both patients with positive blood cultures or inconclusive blood cultures when the patient is suspected of having a bloodstream infection or septicemia and is being treated for the condition. Allowable values: Yes or No/UTD
- 5. Clinical Trial Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients who are newborns were being studied. Allowable values: Yes or No/UTD
- 6. Discharge Date The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
- 7. Discharge Disposition The place or setting to which the patient was discharged.
- 8. ICD-10-CM Other Diagnosis Codes The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
- 9. ICD-10-PCS Other Procedure Codes The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure

	0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	9. ICD-10-CM Principal Diagnosis Code - The International	during this hospitalization.
	Classification of Diseases, Tenth Revision, Clinical Modification code	10. ICD-10-CM Principal Diagnosis Code The International Classification
	associated with the diagnosis established after study to be chiefly	of Diseases, Tenth Revision, Clinical Modification code associated with
	responsible for occasioning the admission of the patient for this	the diagnosis established after study to be chiefly responsible for
	hospitalization.	occasioning the admission of the patient for this hospitalization.
	10. ICD-10-CM Principal Procedure Code - The International	11. ICD-10-PCS Principal Procedure Code - The International Classification
	Classification of Diseases, Tenth Revision, Procedure Coding System	of Diseases, Tenth Revision, Procedure Coding System code that
	code that identifies the principal procedure performed during this	identifies the principal procedure performed during this hospitalization.
	hospitalization. The principal procedure is the procedure	The principal procedure is the procedure performed for definitive
	performed for definitive treatment rather than diagnostic or	treatment rather than diagnostic or exploratory purposes, or which is
	exploratory purposes, or which is necessary to take care of a	necessary to take care of a complication.
	complication.	<del>Updates available at:</del>
	11. Term Newborn - Documentation that the newborn was at term	https://manual.jointcommission.org/releases/TJC2015B2/.
	or >= 37 completed weeks of gestation at the time of birth.	
	Allowable values: Yes or No/UTD	
	Updates available at:	
	http://manual.jointcommission.org/releases/TJC2015B2/	
Exclusions	Admitted to the Neonatal Intensive Care Unit (NICU) at this	ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias as
	hospital during the hospitalization	defined in Appendix A, Table 11.10.2
	• ICD-10-CM Other Diagnosis Codes for galactosemia as defined in	ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias as
	Appendix A, Table 11.21	defined in Appendix A, Table 11.10.2 or ICD-10-CM Principal or Other
	• ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other	Diagnosis Codes for newborn septicemia or bacteremia as defined in
	Procedure Codes for parenteral infusion as defined in Appendix A,	Appendix A, Table 11.10 with a Bloodstream Infection Present on
	Table 11.22	Admission
	Experienced death	• ICD-10-CM Other Diagnosis Codes for birth weight < 500g as defined in
	• Length of Stay >120 days	Appendix A, Table 11.20 OR Birth Weight < 500g
	• Enrolled in clinical trials	• Length of Stay < 2 days
	Patients transferred to another hospital	• Enrolled in clinical trials
	• Patients who are not term or with < 37 weeks gestation	

	0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	completed	
Exclusion Details	<ul> <li>The data element Admission to NICU is used to determine if the patient was admitted to the NICU.</li> <li>Patients with ICD-10-CM Other Diagnosis Codes for galactosemia are excluded.</li> <li>Patients with ICD-10-PCS Principal Procedure Code or ICD-10-PMS Other Procedure Codes for parenteral infusion are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days the patient is excluded.</li> <li>The data element Discharge Disposition is used to determine if the patient was transferred to another hospital or expired.</li> <li>The data element Term Newborn is used to determine if the patient was not term or &lt; 37 completed weeks of gestation.</li> <li>The data element Admission to NICU is used to determine if the patient was admitted to the NICU.</li> <li>Patients with ICD-10-CM Other Diagnosis Codes for galactosemia are excluded.</li> <li>Patients with ICD-10-PCS Principal Procedure Code or ICD-10-PMS Other Procedure Codes for parenteral infusion are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days the patient is excluded.</li> <li>Patients are excluded if "Yes" is selected for Clinical Trial.</li> <li>The data element Discharge Disposition is used to determine if the patient was transferred to another hospital or expired.</li> <li>The data element Term Newborn is used to determine if the patient was not term or &lt; 37 completed weeks of gestation.</li> </ul>	<ul> <li>Patients with ICD-10-CM Principal Diagnosis Code for septicemias or bacteremias are excluded.</li> <li>Patients with ICD-10-CM Other Diagnosis Codes for septicemias or bacteremias with a Bloodstream Infection Present on Admission are excluded.</li> <li>Patients with ICD-10-CM Principal or Other Diagnosis Codes for newborn septicemia or bacteremia with a Bloodstream Infection Present on Admission are excluded.</li> <li>Patients with ICD-10-CM Other Diagnosis Codes for birth weight &lt;500 grams OR a birth weight &lt;500 grams are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is less than 2 days, the patient is excluded.</li> <li>Patients are excluded if "Yes" is selected for Clinical Trial.</li> </ul>
Risk	No risk adjustment or risk stratification	Statistical risk model
Adjustment	Not Applicable	Logistic regression

	0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
		Model Risk Factors Considered:
		Intercept Intercept
		Birth Weight 1250g to 2499g
		Birth Weight 1000 to 1249g
		Birth Weight 500 to 749g
		Birth Weight 750 to 750g
		Modified DRG Newborn Transfers Out or Died
		Congenital Anomaly Gastrointestin
		Available in attached Excel or csv file at S.2b
Stratificatio	Not Applicable	Not applicable, the measure is not stratified.
n		
Type Score	Rate/proportion better quality = higher score	Rate/proportion better quality = lower score
Algorithm	1. Start processing. Run cases that are included in the PC-Newborn	1. Start processing. Run cases that are included in the PC-Newborn Initial
	Initial Patient Newborns with Breast Feeding and pass the edits	Patient Newborns with BSI and pass the edits defined in the Transmission
	<u>defined in the Transmission Data Processing Flow: Clinical through</u>	<u>Data Processing Flow: Clinical through this measure.</u>
	this measure.	2. Calculate Length of Stay. Length of Stay, in days, is equal to the
	2. Check Discharge Disposition	<u>Discharge Date minus the Admission Date.</u>
	a. If Discharge Status equals 4, 6, the case will proceed to a	3. Check Length of Stay
	Measure Category Assignment of B and will not be in the measure	a. If Length of Stay is less than 2 days, the case will proceed to a Measure
	population. Stop processing.	Category Assignment of B and will not be in the measure population. Stop
	b. If Discharge Status equals 1, 2, 3, 5, 7, 8, continue processing and	processing.
	proceed to	b. If Length of Stay is greater than or equal to 2 days, continue processing
	Term Newborn.	and proceed to ICD-10-CM Principal or Other Diagnosis Codes.
	3. Check Term Newborn	4. Check ICD-10-CM Principal or Other Diagnosis Codes
	a. If Term Newborn is missing, the case will proceed to a Measure	a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table
	Category Assignment of X and will be rejected. Stop processing.	11.10, continue processing and proceed to ICD-10-CM Other Diagnosis Codes
	b. If Term Newborn equals Yes, the case will proceed to a Measure	
	<u>Category Assignment of B and will not be in the measure</u> population. Stop processing.	1. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue
	c. If Term Newborn equals No, continue processing and proceed to	processing and proceed to recheck ICD-10-CM Other Diagnosis Codes
	c. II Term Newborn equals No, continue processing and proceed to	processing and proceed to recirculate to earlier brightons codes

#### 0480: PC-05 Exclusive Breast Milk Feeding 1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns Admission to NICU. (Step 7). 2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 4. Check Admission to NICU 11.10.2, continue processing and proceed to Bloodstream Infection a. If Admission to NICU is missing, the case will proceed to a Present on Admission. Measure Category Assignment of X and will be rejected. Stop b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is processing. on Table 11.10, continue processing and proceed to Bloodstream b. If Admission to NICU equals Yes, the case will proceed to a Infection Present on Admission. Measure Category Assignment of B and will not be in the measure population. Stop processing. 5. Check Bloodstream Infection Present on Admission c. If Admission to NICU equals No, continue processing and proceed a. If Bloodstream Infection Present on Admission is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. to Exclusive Breast Milk Feeding. Stop processing. 5. Check Exclusive Breast Milk Feeding b. If Bloodstream Infection Present on Admission equals Yes, the case will a. If Exclusive Breast Milk Feeding is missing, the case will proceed proceed to a Measure Category Assignment of B and will not be in the to a Measure Category Assignment of X and will be rejected. Stop measure population. Stop processing. processing. c. If Bloodstream Infection Present on Admission equals No, continue b. If Exclusive Breast Milk Feeding equals Yes, the case will proceed processing and proceed to check ICD-10-CM Other Diagnosis Codes. to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. 6. Check ICD-10-CM Other Diagnosis Codes c. If Exclusive Breast Milk Feeding equals No, the case will proceed a. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10to a Measure Category Assignment of D and will be in the Measure CM Other Diagnosis Codes (Step 13). Population. Stop processing. Available at measure-specific web b. If all of the ICD-10-CM Other Diagnosis Codes are missing, continue page URL identified in S.1.1. Start processing. Run cases that are processing and proceed to Birth Weight. included in the PC-Newborn Initial Patient Newborns with Breast c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12, Feeding and pass the edits defined in the Transmission Data 11.13, 11.14, continue processing and proceed to recheck ICD-10-CM Processing Flow: Clinical through this measure. Other Diagnosis Codes (Step 8). 2. Check Discharge Disposition 7. Recheck ICD-10-CM Other Diagnosis Codes a. If Discharge Status equals 4, 6, the case will proceed to a a. If at least one of the ICD-10-CM Other Diagnosis Codes on table 11.15, Measure Category Assignment of B and will not be in the measure 11.16, continue processing and proceed to ICD-10-CM Principal or Other population. Stop processing. Procedure Codes.

proceed to Clinical Trial.

continue processing and proceed to Birth Weight.

b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16,

b. If Discharge Status equals 1, 2, 3, 5, 7, 8, continue processing and

### 0480: PC-05 Exclusive Breast Milk Feeding

- 3. Check Clinical Trial
- a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing. b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Clinical Trial equals No, continue processing and proceed to Term Newborn.
- 4. Check Term Newborn
- a. If Term Newborn is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
  b. If Term Newborn equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Term Newborn equals No, continue processing and proceed to Admission to NICU.
- 5. Check Admission to NICU
- a. If Admission to NICU is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Admission to NICU equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Admission to NICU equals No, continue processing and proceed to Exclusive Breast Milk Feeding.
- 6. Check Exclusive Breast Milk Feeding
- a. If Exclusive Breast Milk Feeding is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

#### 1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns

- 8. Check Birth Weight
- <u>a. If Birth Weight is missing, the case will proceed to a Measure Category</u> Assignment of X and will be rejected. Stop processing.
- b. If Birth Weight equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- c. If Birth Weight is less than 500, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- d. If Birth Weight is between 500 and 1499, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
- e. If Birth Weight is greater than or equal to 1500, continue processing and proceed to ICD-10-PCS Principal or Other Procedure Codes.
- 9. Check ICD-10-PCS Principal or Other Procedure Codes
- <u>a. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to recheck ICD-10-PCS Other Diagnosis Codes (Step 13).</u>
- b. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on table 11.18 or 11.19, continue processing and proceed to ICD-10-CM Principal Diagnosis Code.
- 10. Check ICD-10-CM Principal Diagnosis Code
- a. If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step 13).
- <u>b. If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue processing and proceed to Discharge Disposition.</u>
- 11. Check Discharge Disposition
- <u>a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</u>
- b. If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed

# 0480: PC-05 Exclusive Breast Milk Feeding 1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns to a Measure Category Assignment of B and will not be in the measure b. If Exclusive Breast Milk Feeding equals Yes, the case will proceed population. Stop processing. to a Measure Category Assignment of E and will be in the c. If Discharge Disposition equals 6, continue processing and proceed to Numerator Population. Stop processing. recheck ICD-10-CM Other Diagnosis Codes (Step13). c. If Exclusive Breast Milk Feeding equals No, the case will proceed 12. Recheck ICD-10-CM Other Diagnosis Codes to a Measure Category Assignment of D and will be in the Measure a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table Population. Stop processing. Available at measure-specific web 11.10, continue processing and proceed to Bloodstream Infection page URL identified in S.1 Confirmed. b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue processing and proceed to recheck ICD-10-CM Other Diagnosis Codes (Step14). 13. Recheck ICD-10-CM Other Diagnosis Codes a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, continue processing and proceed to Bloodstream Infection Confirmed. b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing. 14. Check Bloodstream Infection Confirmed a. If Bloodstream Infection Confirmed is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing. b. If Bloodstream Infection Confirmed equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing. c. If Bloodstream Infection Confirmed equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing. Calculation of adjusted outcome:

0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
0480: PC-05 Exclusive Breast Milk Feeding	Step 1 Identify the measure population through Measure Category Assignments.  Risk adjusted rate-based measure: Identify the numerator (Measure Category Assignment = E) and the denominator (Measure Category Assignment = D) cases using the information provided in the Measure Information Form (MIF). Risk adjusted continuous variable measure: Identify the number of cases in the measure population (Measure Category Assignment = D). At this time, there are no risk adjusted continuous outcome measures in any of the national hospital quality measure sets.  Note: Do not calculate a Predicted Value for a case if it is rejected by front-end edits or is rejected because one or more measures in the measure set evaluates to a Measure Category Assignment = X.  Step 2 Create risk factors for the measure.  Using the Risk Model Information File provided by the Joint Commission, identify all applicable EOC record data elements and the associated risk factor values for each of the EOC records identified instep 1. Risk factors include patient demographic and/or clinical factors, which can influence outcomes of care. Some examples of risk factors include age, sex, and comorbidities – such as diabetes or a history of hypertension. As an example, Figure 1 lists the data elements required for risk adjustment of generic measure 'ABC'. Using the data for measure 'ABC', the performance measurement system must identify the risk factors at the EOC record-level, and create data subsets for each participating hospital. Available at measure-specific web page URL identified in S.11. Start processing. Run cases that are included in the PC-Newborn Initial Patient
	Newborns with BSI and pass the edits defined in the Transmission Data  Processing Flow: Clinical through this measure.
	2. Calculate Length of Stay. Length of Stay, in days, is equal to the

0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	Discharge Date minus the Admission Date.
	3. Check Length of Stay
	a. If Length of Stay is less than 2 days, the case will proceed to a Measure
	Category Assignment of B and will not be in the measure population. Stop
	<del>processing.</del>
	b. If Length of Stay is greater than or equal to 2 days, continue processing
	and proceed to Clinical Trial.
	4. Check Clinical Trial
	a. If Clinical Trial is missing, the case will proceed to a Measure Category
	Assignment of X and will be rejected. Stop processing.
	b. If Clinical Trial equals Yes, the case will proceed to a Measure Category
	Assignment of B and will not be in the measure population. Stop
	<del>processing.</del>
	c. If Clinical Trial equals No, continue processing and proceed to ICD-10-
	CM Principal or Other Diagnosis Codes.
	5. Check ICD 10 CM Principal or Other Diagnosis Codes
	a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table
	11.10, continue processing and proceed to ICD-10-CM Other Diagnosis
	Codes
	1. If all of the ICD 10 CM Other Diagnosis Codes are missing or none of
	the ICD-10-CM Other Diagnosis Codes is on Table 11.10.2, continue
	processing and proceed to recheck ICD-10-CM Other Diagnosis Codes
	<del>(Step 7).</del>
	2. If at least one of the ICD-10-CM Other Diagnosis Codes is on Table
	11.10.2, continue processing and proceed to Bloodstream Infection
	Present on Admission.
	b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is
	on Table 11.10, continue processing and proceed to Bloodstream
	Infection Present on Admission.

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	6. Check Bloodstream Infection Present on Admission
	a. If Bloodstream Infection Present on Admission is missing, the case will
	proceed to a Measure Category Assignment of X and will be rejected.
	Stop processing.
	b. If Bloodstream Infection Present on Admission equals Yes, the case will
	proceed to a Measure Category Assignment of B and will not be in the
	measure population. Stop processing.
	c. If Bloodstream Infection Present on Admission equals No, continue
	processing and proceed to check ICD-10-CM-Other Diagnosis Codes.
	7. Check ICD 10 CM Other Diagnosis Codes
	a. If at least one of the ICD 10 CM Other Diagnosis Codes is on Table
	11.12, 11.13, 11.14, continue processing and proceed to recheck ICD-10-
	CM Other Diagnosis Codes (Step 13).
	b. If all of the ICD 10 CM Other Diagnosis Codes are missing, continue
	processing and proceed to Birth Weight.
	c. If none of the ICD-10-CM Other Diagnosis Codes is on Table 11.12,
	11.13, 11.14, continue processing and proceed to recheck ICD 10-CM
	Other Diagnosis Codes (Step 8).
	8. Recheck ICD-10-CM-Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes on table 11.15,
	11.16, continue processing and proceed to ICD 10 CM Principal or Other
	Procedure Codes.
	b. If none of the ICD-10-CM Other Diagnosis Codes on table 11.15, 11.16,
	continue processing and proceed to Birth Weight.
	9. Check Birth Weight
	a. If Birth Weight is missing, the case will proceed to a Measure Category
	Assignment of X and will be rejected. Stop processing.
	b. If Birth Weight equals a Non Unable to Determine Value, the case will
	proceed to a Measure Category Assignment of E and will be in the

0480: I	PC-05 Exclusive Breast Milk Feeding 173	31: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	Nu	ımerator Population. Stop processing.
	<del>c. l</del> '	If Birth Weight is less than 500, the case will proceed to a Measure
	<del>Cat</del>	tegory Assignment of B and will not be in the measure population. Stop
	<del>pre</del>	ocessing.
	dI	If Birth Weight is between 500 and 1499, continue processing and
	<del>pre</del>	oceed to recheck ICD-10-CM Other Diagnosis Codes (Step13).
	eI	If Birth Weight is greater than or equal to 1500, continue processing
	and	d proceed to ICD-10-PCS Principal or Other Procedure Codes.
	<del>10.</del>	. Check ICD-10-PCS Principal or Other Procedure Codes
	a. I	If at least one of the ICD-10-PCS Principal or Other Procedure Codes is
	<del>on</del>	table 11.18 or 11.19, continue processing and proceed to recheck ICD
	<del>10</del>	PCS Other Diagnosis Codes (Step 13).
	b.l	If all of the ICD-10-PCS Principal or Other Procedure Codes are missing
	<del>or</del> -	none of the ICD-10-PCS Principal or Other Procedure Codes is on table
	<del>11.</del>	.18 or 11.19, continue processing and proceed to ICD-10 CM Principal
	<del>Dia</del>	agnosis Code.
	<del>11.</del>	. Check ICD-10-CM Principal Diagnosis Code
	a.l	If ICD-10-CM Principal Diagnosis Code is not on table 11.10.3, continue
	pre	ocessing and proceed to recheck ICD-10-CM Other Diagnosis Codes
	<del>(St</del> e	<del>rep 13).</del>
	b.l	If ICD-10-CM Principal Diagnosis Code is on table 11.10.3, continue
	pre	ocessing and proceed to Discharge Disposition.
	<del>12.</del>	. Check Discharge Disposition
	a.+	If Discharge Disposition is missing, the case will proceed to a Measure
	<del>Cat</del>	tegory Assignment of X and will be rejected. Stop processing.
	bI	If Discharge Disposition equals 1, 2, 3, 4, 5, 7, 8, the case will proceed
	to:	a Measure Category Assignment of B and will not be in the measure
	<del>рор</del>	<del>pulation. Stop processing.</del>
	<del>c. li</del>	If Discharge Disposition equals 6, continue processing and proceed to

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	recheck ICD-10-CM-Other Diagnosis Codes (Step13).
	13. Recheck ICD-10-CM Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table
	11.10, continue processing and proceed to Bloodstream Infection
	Confirmed.
	b. If all of the ICD-10-CM Other Diagnosis Codes are missing or none of
	the ICD-10-CM Other Diagnosis Codes is on table 11.10, continue
	processing and proceed to recheck ICD-10-CM Other Diagnosis Codes
	<del>(Step14).</del>
	14. Recheck ICD-10-CM Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Other Diagnosis Codes is on table
	11.10.1, continue processing and proceed to Bloodstream Infection
	Confirmed.
	b. If all of the ICD-10 CM Other Diagnosis Codes are missing or none of
	the ICD-10-CM Other Diagnosis Codes is on table 11.10.1, the case will
	proceed to a Measure Category Assignment of D and will be in the
	Measure Population. Stop processing.
	15. Check Bloodstream Infection Confirmed
	a. If Bloodstream Infection Confirmed is missing, the case will proceed to
	a Measure Category Assignment of X and will be rejected. Stop
	<del>processing.</del>
	b. If Bloodstream Infection Confirmed equals Yes, the case will proceed to
	a Measure Category Assignment of E and will be in the Numerator
	Population. Stop processing.
	c. If Bloodstream Infection Confirmed equals No, the case will proceed to
	a Measure Category Assignment of D and will be in the Measure
	Population. Stop processing.
	Calculation of adjusted outcome:
	Step 1 Identify the measure population through Measure Category

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		Assignments.
		Risk adjusted rate based measure: Identify the numerator (Measure
		Category Assignment = E) and the denominator (Measure Category
		Assignment = D) cases using the information provided in the Measure
		Information Form (MIF). Risk adjusted continuous variable measure:
		Identify the number of cases in the measure population (Measure
		Category Assignment = D). At this time, there are no risk adjusted
		continuous outcome measures in any of the national hospital quality
		measure sets.
		Note: Do not calculate a Predicted Value for a case if it is rejected by
		front end edits or is
		rejected because one or more measures in the measure set evaluates to a
		Measure Category Assignment = X.
		Step 2 Create risk factors for the measure.
		Using the Risk Model Information File provided by the Joint Commission,
		identify all applicable EOC record data elements and the associated risk
		factor values for each of the EOC records identified instep 1. Risk factors
		include patient demographic and/or clinical factors, which can influence
		outcomes of care. Some examples of risk factors include age, sex, and
		comorbidities – such as diabetes or a history of hypertension. As an
		example, Figure 1 lists the data elements required for risk adjustment of
		generic measure 'ABC'. Using the data for measure 'ABC', the
		performance measurement system must identify the risk factors at the
		EOC record level, and create data subsets for each participating hospital.
		Available at measure-specific web page URL identified in S.1
Submission	5.1 Identified measures:	5.1 Identified measures: 0304 : Late sepsis or meningitis in Very Low Birth
items		Weight (VLBW) neonates (risk-adjusted)
	5a.1 Are specs completely harmonized?	0478 : Neonatal Blood Stream Infection Rate (NQI 03)

ı	0480: PC-05 Exclusive Breast Milk Feeding	1731: PC-04 Health Care-Associated Bloodstream Infections in Newborns
	5a.2 If not completely harmonized, identify difference, rationale, impact: Not Applicable	5a.1 Are specs completely harmonized? No
		5a.2 If not completely harmonized, identify difference, rationale, impact:
	5b.1 If competing, why superior or rationale for additive value: Not	
	Applicable	evaluates very low birth weight newborns for both late sepsis and
		meningitis with birth weights between 401 and 1500 Gms and a
		gestational age between 22 weeks 0 days and 28 weeks six days. Measure
		0304 also evaluates all newborns who are in the hospital after 3 days of
		birth. Numerator inclusions for measure 0304 are a bacterial pathogen recovered from a blood culture and/or cerebrospinal fluid culture
		obtained after Day 3 of life OR all 3 of the following: 1.) Coagulase
		Negative Staphylococcus recovered from a blood culture from either a
		central line or peripheral blood sample and/or is recovered from
		cerebrospinal fluid by lumbar puncture, ventricular tap or ventricular
		drain 2.) One or more signs of generalized infection (i.e., apnea,
		temperature instability, feeding intolerance, worsening respiratory
		distress or hemodynamic instability) and 3.) Treatment with 5 or more
		days of intravenous antibiotics. The major differences between measure
		0304 and measure 1731 are: • Measure 1731 does not include cases
		with meningitis based on results from cerebrospinal fluid cultures •
		Measure 1731 includes birth weights which are 500 Gms or more
		rather than 400 Gms or more, and measure 1731 also includes newborns 1500 gms or more with one or more specific medical indication: major
		surgery, mechanical ventilation, expired or transferred-in. • Measure
		1731 excludes newborns born with infections within the first 48 hours of
		admission and newborns with bloodstream infections occurring after the
		first 48 hours after birth that are due to causes that are not health care-
		associated, i.e., necrotizing enterocolitis, urosepsis, etc.

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	5b.1 If competing, why superior or rationale for additive value: Measure 0478 is similar to this measure. The fundamental differences are that measure 0478 has been developed to collect all data elements using administrative data. Such an approach has led in some cases to loss of specificity available through review of the medical record. The two measures have been harmonized to the extent possible; however, there are intrinsic differences which are addressed in a comparison table in the attachment found in Section A.1 Supplemental Materials.

# Comparison of NQF 1391 and NQF 1517

	1391: Frequency of Ongoing Prenatal Care (FPC)	1517: Prenatal & Postpartum Care (PPC)
Steward	National Committee for Quality Assurance	National Committee for Quality Assurance
Description	The percentage of Medicaid deliveries that had the following number of expected prenatal visits:  • less than 21 percent of expected visits.  • 21 percent—40 percent of expected visits.  • 41 percent—60 percent of expected visits.  • 61 percent—80 percent of expected visits.  • greater than or equal to 81 percent of expected visits.	The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the measurement year. For these women, the measure assesses the following facets of prenatal and postpartum care:  Rate 1: Timeliness of Prenatal Care. The percentage of deliveries that received a prenatal care visit as a member of the organization in the first trimester or within 42 days of enrollment in the organization.  Rate 2: Postpartum Care. The percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery.
Туре	Process	Process

	1391: Frequency of Ongoing Prenatal Care (FPC)	1517: Prenatal & Postpartum Care (PPC)
Data Source	Administrative claims, Electronic Clinical Data, Paper Medical	Administrative claims, Electronic Clinical Data, Paper Medical Records
	Records This measure is based on administrative claims and	This measure is based on administrative claims and medical record
	medical record documentation collected in the course of providing	documentation collected in the course of providing care to health plan
	care to health plan members. NCQA collects the Healthcare	members. NCQA collects the Healthcare Effectiveness Data and
	Effectiveness Data and Information Set (HEDIS) data for this	Information Set (HEDIS) data for this measure directly from Health
	measure directly from Health Management Organizations and	Management Organizations and Preferred Provider Organizations via
	Preferred Provider Organizations via NCQA's online data	NCQA's online data submission system.
	submission system.	No data collection instrument provided Attachment
	No data collection instrument provided Attachment	1517_PPC_Value_Sets.xlsx
	1391_FPC_Value_Sets.xlsx	
Level	Health Plan, Integrated Delivery System	Health Plan, Integrated Delivery System
Setting	Ambulatory Care : Clinician Office/Clinic	Ambulatory Care : Clinician Office/Clinic
Numerator	Women who had the appropriate number of expected prenatal	This measure assesses whether pregnant women had timely prenatal
Statement	visits	and postpartum care visits. It has two rates, one assessing the timeliness
		of prenatal visits, and one assessing the timeliness of postpartum visits.
Numerator	Administrative Specifications	Administrative Specifications
Details	Women who had an unduplicated count of less than 21 percent,	Timeliness of Prenatal Care
	21 percent-40 percent, 41 percent-60 percent, 61 percent-80	A prenatal visit in the first trimester or within 42 days of enrollment,
	percent or greater than or equal to 81 percent of the number of	depending on the date of enrollment in the organization and the gaps in
	expected visits, adjusted for the month of pregnancy at time of	enrollment during the pregnancy. Include only visits that occur while the
	enrollment and gestational age. For each delivery, follow the steps	member was enrolled.
	below to calculate each woman's ratio of observed-to-expected	Follow the steps below to identify the numerator.
	prenatal care visits.	Step 1: Determine enrollment status during the first trimester. For all
	Step 1: Identify the delivery date using hospital discharge data.	women in the eligible population, identify those who were enrolled on or
	Step 2: Identify the date when the member enrolled in the	before 280 days prior to delivery (or estimated date of delivery [EDD]).
	organization and determine the stage of pregnancy at time of	For these women, proceed to step 2.
	enrollment. If the member has gaps in enrollment during	For women not enrolled on or before 280 days prior to delivery (or EDD),
	pregnancy, use the last enrollment segment to determine	who were therefore pregnant at the time of enrollment, proceed to step
	continuous enrollment in the organization. For members with a	3.

gap in enrollment any time during pregnancy (including a gap in the first trimester), the last enrollment segment is the enrollment start date during the pregnancy that is closest to the delivery date. Use the following approach (or an equivalent method) to calculate the stage of pregnancy at time of enrollment. If gestational age is not available, assume a gestational age of 280 days (40 weeks).

- Convert gestational age into days.
- Subtract gestational age (in days) from the date of delivery (step 1).
- Subtract the date obtained above from the date when the member enrolled in the organization to determine the stage of pregnancy at time of enrollment.
- Divide the numbers of days the member was pregnant at enrollment (step 3) by 30. Round the resulting number according to the .5 rule to a whole number.

For example, delivery date is August 8, 2015; gestational age is 33 weeks; date of enrollment is May 6, 2015. Given these variables, the process is:

- Gestational age in days is 231 days (33 weeks '7 days/week).
- Date of delivery gestational age (in days) is December 20, 2014
   (August 8, 2015 231 days).
- Date when the member enrolled in the organization date
   obtained in step 2 is 137 days (May 6, 2015 December 20, 2014).
- Month in which prenatal care began is 4.56 months (137 days/30 days) and then round up to 5 months using the 0.5 rule.
   This member's stage of pregnancy at time of enrollment is 5

This member's stage of pregnancy at time of enrollment is 5 months.

Step 3: Use Table FPC-A to find the number of recommended prenatal visits by gestational age and stage of pregnancy at time of

### 1517: Prenatal & Postpartum Care (PPC)

Step 2: Determine continuous enrollment for the first trimester. Identify women from step 1 who were continuously enrolled during the first trimester (176–280 days prior to delivery [or EDD]), with no gaps in enrollment. For these women, determine numerator compliance using the decision rules for Identifying Prenatal Care For Women Continuously Enrolled During the First Trimester.

For women who were not continuously enrolled during the first trimester (e.g., had a gap between 176 and 280 days before delivery), proceed to step 3.

Step 3: Determine the start date of the last enrollment segment (i.e., the enrollment segment during the pregnancy with the start date that is closest to the delivery date).

For women whose last enrollment started on or between 219 and 279 days before delivery, proceed to step 4.

For women whose last enrollment started less than 219 days before delivery, proceed to step 5.

Step 4: Determine numerator compliance. If the last enrollment segment started on or between 219 and 279 days before delivery, determine numerator compliance using the instructions for Identifying Prenatal Care for Women Not Continuously Enrolled During the First Trimester and find a visit between the last enrollment start date and 176 days before delivery.

Step 5: Determine numerator compliance. If the last enrollment segment started less than 219 days before delivery (i.e., between 219 days before delivery and the day of delivery), determine numerator compliance using the instructions for Identifying Prenatal Care for Women Not Continuously Enrolled During the First Trimester and find a visit within 42 days after enrollment.

Identifying Prenatal Care for Women Continuously Enrolled During the

enrollment per the American College of Obstetricians and Gynecologists (ACOG). The chart subtracts the number of missed visits prior to the date the member enrolled from the number of recommended visits for a given gestational age.

ACOG recommends that women with an uncomplicated pregnancy receive visits every

4 weeks for the first 28 weeks of pregnancy, every 2–3 weeks until 36 weeks of pregnancy, and weekly thereafter. For example, ACOG recommends 14 visits for a 40-week pregnancy. If the member enrolled during her fourth month (3 missed visits prior to enrollment in the organization), the expected number of visits is 14-3=11.

For deliveries with a gestational age less than 28 weeks or >43 weeks, calculate the expected number of prenatal care visits using the date when the member enrolled and ACOG's recommended schedule of visits. For example, if gestational age is 26 weeks and the member enrolled during her second month of pregnancy, the expected number of prenatal care visits is 5 (6 expected visits [1 visit every 4 weeks or 6 visits in 24 weeks], less 1 visit missed in the first month).

If gestational age is 44 weeks and the member enrolled during her third month of pregnancy, the expected number of prenatal care visits is 16 (14 expected visits for a 40-week gestation plus 1 visit each additional week [18 total expected prenatal care visits], less 2 visits missed in the first and second months).

Step 4: Identify the number of discrete prenatal care visits the member received during the course of her pregnancy and while enrolled in the organization using claims and encounter data. To identify prenatal visits that occurred during the first trimester,

### 1517: Prenatal & Postpartum Care (PPC)

First Trimester

**Decision Rule 1** 

Either of the following during the first trimester, where the practitioner type is an OB/GYN or other prenatal care practitioner or PCP meets criteria:

- A bundled service (Prenatal Bundled Services Value Set) where the organization can identify the date when prenatal care was initiated (because bundled service codes are used on the date of delivery, these codes may be used only if the claim form indicates when prenatal care was initiated).
- A visit for prenatal care (Stand Alone Prenatal Visits Value Set).
   Decision Rule 2

Any of the following during the first trimester, where the practitioner type for the prenatal visit is an OB/GYN or other prenatal care practitioner, meet criteria:

- A prenatal visit (Prenatal Visits Value Set) with an obstetric panel (Obstetric Panel Value Set).
- A prenatal visit (Prenatal Visits Value Set) with an ultrasound (echocardiography) of the pregnant uterus (Prenatal Ultrasound Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set).
- A prenatal visit (Prenatal Visits Value Set) with all of the following:
- Toxoplasma (Toxoplasma Antibody Value Set).
- Rubella (Rubella Antibody Value Set).
- Cytomegalovirus (Cytomegalovirus Antibody Value Set).
- Herpes simplex (Herpes Simplex Antibody Value Set).
- A prenatal visit (Prenatal Visits Value Set) with rubella (Rubella Antibody Value Set) and ABO (ABO Value Set).

refer to the Prenatal and Postpartum Care measure decisions rules for Identifying Prenatal Care For Women Continuously Enrolled During the First Trimester.

To identify prenatal visits that occurred during the second and third trimester, refer to the prenatal and postpartum care measure instructions for Identifying Prenatal Care For Women Not Continuously Enrolled During the First Trimester. Visits that occur on the date of delivery and meet the prenatal visit criteria count toward the measure.

All criteria must be met for encounters to be counted as a discrete prenatal care visit. For example, Decision Rules 2 and 3 require multiple components (typically a visit combined with a diagnosis code or another prenatal service such as a lab test or an ultrasound). Ultrasound and lab results alone are not considered a discrete prenatal care visit unless they are combined with other criteria.

Services that occur over multiple visits can be combined to create a discrete prenatal care visit if all services occur within the time frame established in the measure and services are not double counted. Organizations must develop systems to avoid double counting. For example, a code from the Stand Alone Prenatal Visits Value Set on the same date of service as a code from the Prenatal Visits Value Set is interpreted to represent a single visit/encounter and may not be counted twice. If the member had a gap in enrollment, count only the visits received during the last enrollment segment.

Step 5: Calculate the ratio of observed visits (step 4) to expected visits (step 3).

Step 6: Report each woman in the appropriate category:

# 1517: Prenatal & Postpartum Care (PPC)

- A prenatal visit (Prenatal Visits Value Set) with rubella (Rubella Antibody Value Set) and Rh (Rh Value Set).
- A prenatal visit (Prenatal Visits Value Set) with rubella (Rubella Antibody Value Set) and ABO/Rh (ABO and Rh Value Set). Decision Rule 3

Any of the following during the first trimester, where the practitioner type is a PCP, meet criteria:

- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and an obstetric panel (Obstetric Panel Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and an ultrasound (echocardiography) of the pregnant uterus (Prenatal Ultrasound Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and all of the following:
- Toxoplasma (Toxoplasma Antibody Value Set).
- Rubella (Rubella Antibody Value Set).
- Cytomegalovirus (Cytomegalovirus Antibody Value Set).
- Herpes simplex (Herpes Simplex Antibody Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and rubella (Rubella Antibody Value Set) and ABO (ABO Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and rubella (Rubella Antibody Value Set) and Rh (Rh Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set) and rubella (Rubella Antibody Value Set) and ABO/Rh (ABO and Rh Value Set).

- less than 21 percent.
- 21 percent-40 percent.
- 41 percent-60 percent.
- 61 percent-80 percent.
- greater than or equal to 81 percent of expected visits.

**Medical Record Specification** 

Women who had an unduplicated count of the number of expected visits that was less than 21 percent, 21 percent—40 percent, 41 percent—60 percent, 61 percent—80 percent or greater than or equal to 81 percent of the number of expected visits, adjusted for the month of pregnancy at time of enrollment and gestational age. The visits may be identified through either administrative data or medical record review.

The numerator is calculated retroactively from date of delivery or EDD.

Use the medical record documentation requirements in the Prenatal and Postpartum Care measure to identify prenatal visits that occur during the first, second and third trimesters. Identify gestational age at birth from the hospital record (e.g., admission write-ups, histories and physicals, discharge summaries or labor and delivery records) or birth certificate. Gestational age is the number of completed weeks that elapsed between the first day of the last normal menstrual period and the date of delivery. If gestational age is not available, assume a gestational age of 280 days (40 weeks).

Methods recommended to determine gestational age are: Physician ascertainment using ultrasound or Dubowitz assessment. Last menstrual period (LMP) calculation (date of LMP – date of delivery) divided by 7. If gestational age is recorded or calculated

### 1517: Prenatal & Postpartum Care (PPC)

- A prenatal visit (Prenatal Visits Value Set) with any internal organization code for LMP or EDD with an obstetrical history.
- A prenatal visit (Prenatal Visits Value Set) with any internal organization code for LMP or EDD with risk assessment and counseling/education.

Note: For Decision Rule 3 criteria that require a prenatal visit code (Prenatal Visits Value Set) and a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set), codes must be on the same claim. Identifying Prenatal Care for Women Not Continuously Enrolled During the First Trimester

Any of the following, where the practitioner type is an OB/GYN or other prenatal care practitioner or PCP, meet criteria:

- A bundled service (Prenatal Bundled Services Value Set) where the organization can identify the date when prenatal care was initiated (because bundled service codes are used on the date of delivery, these codes may be used only if the claim form indicates when prenatal care was initiated).
- A visit for prenatal care (Stand Alone Prenatal Visits Value Set).
- A prenatal visit (Prenatal Visits Value Set) with an ultrasound (echocardiography) of the pregnant uterus (Prenatal Ultrasound Value Set).
- A prenatal visit (Prenatal Visits Value Set) with a principal pregnancyrelated diagnosis code (Pregnancy Diagnosis Value Set). Note: For criteria that require a prenatal visit code (Prenatal Visits Value Set) and a pregnancy-related diagnosis code (Pregnancy Diagnosis Value

Set) and a pregnancy-related diagnosis code (Pregnancy Diagnosis Value Set), codes must be on the same claim. Criteria for identifying prenatal care for women who were not continuously enrolled during the first trimester allow more flexibility than criteria for women who were continuously enrolled.

1391: Frequency of Ongoing Prenatal Care (FPC)	1517: Prenatal & Postpartum Care (PPC)
in fractions of a week, round down to the lower whole number.	Postpartum Care
	A postpartum visit for a pelvic exam or postpartum care on or between
	21 and 56 days after delivery. Any of the following meet criteria:
	A postpartum visit (Postpartum Visits Value Set).
	Cervical cytology (Cervical Cytology Value Set).
	• A bundled service (Postpartum Bundled Services Value Set) where the
	organization can identify the date when postpartum care was rendered
	(because bundled service codes are used on the date of delivery, not on
	the date of the postpartum visit, these codes may be used only if the
	claim form indicates when postpartum care was rendered).
	Note: The practitioner requirement only applies to the Hybrid
	Specification. The organization is not required to identify practitioner
	type in administrative data.
	Medical Record Specification
	Timeliness of Prenatal Care
	A prenatal visit in the first trimester or within 42 days of enrollment,
	depending on the date of enrollment in the organization and gaps in
	enrollment during the pregnancy. Include only visits that occurred while
	the member was enrolled.
	Prenatal care visit to an OB/GYN or other prenatal care practitioner or
	PCP. For visits to a PCP, a diagnosis of pregnancy must be present.
	Documentation in the medical record must include a note indicating the
	date when the prenatal care visit occurred, and evidence of one of the
	following.
	A basic physical obstetrical examination that includes auscultation for
	fetal heart tone, or pelvic exam with obstetric observations, or
	measurement of fundus height (a standardized prenatal flow sheet may
	be used).
	• Evidence that a prenatal care procedure was performed, such as:

1391: Frequency of Ongoing Prenatal Care (FPC)	1517: Prenatal & Postpartum Care (PPC)
1391: Frequency of Origonia Prenatal Care (FPC)	<ul> <li>Screening test in the form of an obstetric panel (must include all of the following: hematocrit, differential WBC count, platelet count, hepatitis B surface antigen, rubella antibody, syphilis test, RBC antibody screen, Rh and ABO blood typing), or</li> <li>TORCH antibody panel alone, or</li> <li>A rubella antibody test/titer with an Rh incompatibility (ABO/Rh) blood typing, or</li> <li>Echography of a pregnant uterus.</li> <li>Documentation of LMP or EDD in conjunction with either of the following.</li> <li>Prenatal risk assessment and counseling/education.</li> <li>Complete obstetrical history.</li> <li>Note: For women whose last enrollment segment was after 219 days prior to delivery (i.e., between 219 days prior to delivery and the day of delivery) and women who had a gap during the first trimester, count documentation of a visit to an OB/GYN, family practitioner or other PCP with a principal diagnosis of pregnancy.</li> <li>Postpartum Care</li> <li>A postpartum visit for a pelvic exam or postpartum care on or between 21 and 56 days after delivery, as documented through either administrative data or medical record review.</li> <li>Postpartum visit to an OB/GYN practitioner or midwife, family practitioner or other PCP on or between 21 and 56 days after delivery.</li> <li>Documentation in the medical record must include a note indicating the date when a postpartum visit occurred and one of the following.</li> <li>Pelvic exam.</li> </ul>
	<ul> <li>Evaluation of weight, BP, breasts and abdomen.</li> <li>Notation of "breastfeeding" is acceptable for the "evaluation of</li> </ul>
	breasts" component.

	1391: Frequency of Ongoing Prenatal Care (FPC)	1517: Prenatal & Postpartum Care (PPC)
		<ul> <li>Notation of postpartum care, including, but not limited to:         <ul> <li>Notation of "postpartum care," "PP care," "PP check," "6-week check."</li> <li>A preprinted "Postpartum Care" form in which information was documented during the visit.</li> </ul> </li> </ul>
		<ul> <li>For both rates:</li> <li>Services that occur over multiple visits count toward this measure if all services are within the time frame established in the measure.  Ultrasound and lab results alone are not considered a visit; they must be linked to an office visit with an appropriate practitioner in order to count for this measure.</li> <li>NCQA defines a PCP and OB/GYN and other prenatal practitioners as including:</li> <li>Physicians certified as obstetricians or gynecologists by the American Medical Specialties Board of Obstetrics or Gynecology or the American Osteopathic Association; or, if not certified, who successfully completed an accredited program of graduate medical or osteopathic education in obstetrics and gynecology.</li> <li>Certified nurse midwives and nurse practitioners who deliver prenatal care services in a specialty setting (under the direction of an OB/GYN certified or accredited provider).</li> </ul>
Denominator Statement	The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the	The percentage of deliveries of live births between November 6 of the year prior to the measurement year and November 5 of the
Denominator Details	measurement year.  Product Line: Medicaid.  Continuous enrollment: 43 days prior to delivery through 56 days after delivery.  Allowable gap: No allowable gap during the continuous enrollment	measurement year.  Product Lines: Commercial, Medicaid (report each product line separately).  Continuous enrollment: 43 days prior to delivery through 56 days after delivery.

	1391: Frequency of Ongoing Prenatal Care (FPC)	1517: Prenatal & Postpartum Care (PPC)
	period.	Allowable gap: No allowable gap during the continuous enrollment
	Anchor date: Date of delivery.	period.
	Benefit: Medical.	Anchor date: Date of delivery.
	Event/ diagnosis: Delivered a live birth on or between November 6	Benefit: Medical.
	of the year prior to the measurement year and November 5 of the	Event/ diagnosis: Delivered a live birth on or between November 6 of the
	measurement year. Include women who delivered in any setting.	year prior to the measurement year and November 5 of the
	Multiple births. Women who had two separate deliveries	measurement year. Include women who delivered in any setting.
	(different dates of service) between November 6 of the year prior	Multiple births. Women who had two separate deliveries (different dates
	to the measurement year and November 5 of the measurement	of service) between November 6 of the year prior to the measurement
	year are counted twice. Women who had multiple live births	year and November 5 of the measurement year count twice. Women
	during one pregnancy are counted once.	who had multiple live births during one pregnancy count once.
	Follow the steps below to identify the eligible population, which is	Follow the steps below to identify the eligible population, which is the
	the denominator for both rates.	denominator for both rates.
	Step 1: Identify deliveries. Identify all women with a delivery	Step 1: Identify deliveries. Identify all women with a delivery (Deliveries
	(Deliveries Value Set) between November 6 of the year prior to the	Value Set) between November 6 of the year prior to the measurement
	measurement year and November 5 of the measurement year.	year and November 5 of the measurement year.
	Step 2: Exclude non-live births (Non-live Births Value Set). Step 3:	Step 2: Exclude non-live births (Non-live Births Value Set).
	Identify continuous enrollment. Determine if enrollment was	Step 3: Identify continuous enrollment. Determine if enrollment was
	continuous between 43 days prior to delivery and 56 days after	continuous between 43 days prior to delivery and 56 days after delivery,
	delivery, with no gaps.	with no gaps.
Exclusions	Exclude non-live births	Non-live births
Exclusion	See corresponding Excel document for the Non-live Births Value	See corresponding Excel document for the Non-live Births Value Set.
Details	Set	
Risk	No risk adjustment or risk stratification	No risk adjustment or risk stratification
Adjustment	NA	N/A
Stratification	None	N/A
Type Score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score
Algorithm	Step 1: Calculate the eligible population following the instructions	Step 1: Calculate the eligible population following the instructions in the
	in the denominator details listed in section S.9.	denominator details listed in section S.9.

	1391: Frequency of Ongoing Prenatal Care (FPC)	1517: Prenatal & Postpartum Care (PPC)
	Step 2: Remove the exclusions identified in section S.10. Step 3: Calculate the numerator following the instructions in the numerator details listed in section S.6. Step 4: Divide the numerator from Step 3 by the denominator from Step 2 to determine the rate. No diagram provided	Step 2: Remove the exclusions identified in section S.10. Step 3: Calculate the numerator for Rate 1 following the instructions in the numerator details listed in section S.6. Step 4: Divide the numerator from Step 3 by the denominator from Step 2 to determine Rate 1. Step 5: Calculate the numerator for Rate 2 following the instructions in the numerator details listed in section S.6. Step 6: Divide the numerator from Step 5 by the denominator from Step 2 to determine Rate 2. No diagram provided
Submission items	5.1 Identified measures: 1517 : Prenatal & Postpartum Care (PPC)	5.1 Identified measures: 1391 : Frequency of Ongoing Prenatal Care (FPC)
	5a.1 Are specs completely harmonized? Yes	5a.1 Are specs completely harmonized? Yes
	5a.2 If not completely harmonized, identify difference, rationale, impact:	5a.2 If not completely harmonized, identify difference, rationale, impact:
	5b.1 If competing, why superior or rationale for additive value:	5b.1 If competing, why superior or rationale for additive value:

# Comparison of NQF 2829 and 0469

	2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
Steward	The Joint Commission	The Joint Commission
Description	This measure assesses patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Section, PC-03: Antenatal Steroids, PC-04: Health Care-	This measure assesses patients with elective vaginal deliveries or elective cesarean births at >= 37 and < 39 weeks of gestation completed. This measure is a part of a set of five nationally implemented measures that address perinatal care (PC-02: Cesarean Birth, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-

2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). PC-01, Elective Delivery is one of two of the measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.	05: Exclusive Breast Milk Feeding)
Process	Process
Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Electronic Clinical Data: Pharmacy Hospitals report EHR data using Certified Electronic Health Record Technology (CEHRT), and by submitting Quality Reporting Document Architecture Category 1 (QRDA-1).  No data collection instrument provided Attachment ElectiveDelivery_v4_Wed_Apr_01_14.49.44_CDT_2015-635908096518042002.xls	Electronic Clinical Data, Paper Medical Records Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.  No data collection instrument provided Attachment PC01_ICD_Code_Tables.xlsx
Facility, Population : National	Facility, Population : National
Hospital/Acute Care Facility	Hospital/Acute Care Facility
Patients with elective deliveries by either:  - Medical induction of labor while not in labor prior to the procedure	Patients with elective deliveries with ICD-10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes for one or more of the following:  • Medical induction of labor as defined in Appendix A, Table 11.05 available at: http://manual.jointcommission.org/releases/TJC2016A/ while not in Labor prior to the procedure
	Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding). PC-01, Elective Delivery is one of two of the measures in this set that have been reengineered as eCQMs and are included in the EHR Incentive Program and Hospital Inpatient Quality Reporting Program.  Process  Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Electronic Clinical Data: Pharmacy Hospitals report EHR data using Certified Electronic Health Record Technology (CEHRT), and by submitting Quality Reporting Document Architecture Category 1 (QRDA-1).  No data collection instrument provided Attachment ElectiveDelivery_v4_Wed_Apr_01_14.49.44_CDT_2015-635908096518042002.xls  Facility, Population: National  Hospital/Acute Care Facility  Patients with elective deliveries by either:  - Medical induction of labor while not in labor prior to the

C-01 Elective Delivery	0469: PC-01 Elective Delivery
surgery	<ul> <li>Cesarean birth as defined in Appendix A, Table 11.06 and all of the following:         <ul> <li>o not in Labor</li> <li>o no history of a Prior Uterine Surgery available at:</li> <li>http://manual.jointcommission.org/releases/TJC2016A/Patients with</li> <li>elective deliveries with ICD 10 PCS Principal Procedure Code or ICD 10 PCS Other Procedure Codes for one or more of the following:</li> </ul> </li> <li>Medical induction of labor as defined in Appendix A, Table 11.05 available at: http://manual.jointcommission.org/releases/TJC2015B2/while not in Labor prior to the procedure</li> <li>Cesarean birth as defined in Appendix A, Table 11.06 and all of the following:</li> <li>not in Labor</li> <li>not in Labor</li> <li>no history of a Prior Uterine Surgery available at:</li> </ul>
Medical Induction of Labor is represented as a code from he following value sets and associated QDM datatype:  Procedure, Performed: Medical Induction of Labor (OID 0.1.113883.3.117.1.7.1.288)  Procedure, Performed: Artificial Rupture of Membranes 6.840.1.113762.1.4.1045.57)	Four data elements are used to calculate the numerator:  1. ICD-10-PCS Other Procedure Codes - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies significant procedures performed other than the principal procedure during this hospitalization.  2. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies the principal procedure performed during this hospitalization. The principal procedure is the procedure performed for definitive treatment rather than diagnostic or exploratory purposes, or which is necessary to
h P D.	e following value sets and associated QDM datatype: rocedure, Performed: Medical Induction of Labor (OID 1.113883.3.117.1.7.1.288) rocedure, Performed: Artificial Rupture of Membranes

#### 2829: PC-01 Elective Delivery 0469: PC-01 Elective Delivery 3. Labor- Documentation that the patient was in labor prior to induction 2.16.840.1.113762.1.4.1045.55) and/or cesarean birth. Allowable values: Yes or No/UTD. Medication, Administered: Dinoprostone (OID 4. Prior Uterine Surgery- Documentation that the patient had undergone prior uterine surgery which includes: a prior classical cesarean birth 2.16.840.1.113762.1.4.1045.56) defined as a vertical incision into the upper uterine segment, a prior myomectomy, a prior uterine surgery resulting in a perforation of the Labor is represented with the QDM datatype and value set uterus due to an accidental injury, a history of a uterine window or of "Physical Exam, Performed: Labor (OID thinning of the uterine wall noted during prior uterine surgery or during 2.16.840.1.113883.3.117.1.7.1.281) ultrasound, a history of uterine rupture requiring surgical repair, a history of a cornual ectopic pregnancy or history of a transabdominal cerclage. Cesarean Birth is represented with the QDM data type and Allowable Values: Yes or No/UTD value set of "Procedure, Performed: Cesarean Birth (OID: Patients are eligible for the numerator population with ICD-10-PCS Other 2.16.840.1.113883.3.117.1.7.1.282) Procedure Codes or ICD-10-PCS Principal Procedure Code for medical induction or with ICD-10-PCS Other Procedure Codes or ICD-10-PCS Prior Uterine Surgery is represented as a code from one of Principal Procedure Code for cesarean birth when the allowable value the following value sets and associated QDM datatype: equals "no" for the data elements Labor and Prior Uterine Surgery. Updates available at: Diagnosis, Resolved: Perforation of Uterus (OID http://manual.jointcommission.org/releases/TJC2016A/Four data 2.16.840.1.113883.3.117.1.7.1.136) elements are used to calculate the numerator: Diagnosis, Resolved: Uterine Window (OID 1. ICD-10 PCS Other Procedure Codes - The International Classification of 2.16.840.1.113883.3.117.1.7.1.137) Diseases, Tenth Revision, Procedure Coding System code that identifies Diagnosis, Resolved: Uterine Rupture (OID significant procedures performed other than the principal procedure 2.16.840.1.113883.3.117.1.7.1.138) during this hospitalization. Diagnosis, Inactive: Cornual Ectopic Pregnancy (OID 2. ICD-10-PCS Principal Procedure Code - The International Classification of Diseases, Tenth Revision, Procedure Coding System code that identifies 2.16.840.1.113762.1.4.1045.27) the principal procedure performed during this hospitalization. The Procedure, Performed: Classical Cesarean Birth (OID principal procedure is the procedure performed for definitive treatment 2.16.840.1.113883.3.117.1.7.1.421) rather than diagnostic or exploratory purposes, or which is necessary to

	2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
	o Procedure, Performed: Myomectomy (OID 2.16.840.1.113883.3.117.1.7.1.422)	take care of a complication.
	o Procedure, Performed: Transabdominal Cerclage (OID 2.16.840.1.113762.1.4.1110.2)	3. Labor Documentation that the patient was in labor prior to induction and/or cesarean birth. Allowable values: Yes or No/UTD.
	To access the value sets for the measure, please visit the Value Set Authority Center (VSAC), sponsored by the National Library of Medicine, at this link: https://vsac.nlm.nih.gov/.	4. Prior Uterine Surgery Documentation that the patient had undergone prior uterine surgery which includes: a prior classical cesarean birth defined as a vertical incision into the upper uterine segment, a prior myomectomy, a prior uterine surgery resulting in a perforation of the
		uterus due to an accidental injury, a history of a uterine window or thinning of the uterine wall noted during prior uterine surgery or during ultrasound, a history of uterine rupture requiring surgical repair, a history of a cornual ectopic pregnancy or history of a transabdominal cerclage.
		Allowable Values: Yes or No/UTD
		Patients are eligible for the numerator population with ICD-10 PCS Other Procedure Codes or ICD-10 PCS Principal Procedure Code for medical induction or with ICD-10 PCS Other Procedure Codes or ICD-10 PCS Principal Procedure Code for cesarean birth when the allowable value equals "no" for the data elements Labor and Prior Uterine Surgery.
		Updates available at:  http://manual.jointcommission.org/releases/TJC2015B2/
Denominat or Statement	The Denominator is patients who deliver newborns with >= 37 and < 39 weeks of gestation completed.	Patients delivering newborns with >= 37 and < 39 weeks of gestation completed with ICD-10-PCS Principal or Other Procedure Codes for delivery as defined in Appendix A, Table 11.01.1 available at: <a href="http://manual.jointcommission.org/releases/TJC2016A/">http://manual.jointcommission.org/releases/TJC2016A/</a> and with ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for

available http://ma	esarean birth in labor as defined in Appendix A, Table 11.06.1
Denominat or Details  Denominat or Denominated  Denomination  Denomi	inual.jointcommission.org/releases/TJC2016A/Patients ; newborns with >= 37 and < 39 weeks of gestation completed 10-PCS Principal or Other Procedure Codes for delivery as a Appendix A, Table 11.01.1 available at: inual.jointcommission.org/releases/TJC2015B2/ and with ICD- incipal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for resarean birth in labor as defined in Appendix A, Table 11.06.1 at: http://manual.jointcommission.org/releases/TJC2015B2/ lements are used to calculate the denominator: ion Date – The month, day and year of admission to acute

	2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
		inpatient care.
		2. Birthdate The month, day and year the patient was born.
		3. Clinical Trial – Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients with pregnancy were being studied. Allowable values: Yes or No/UTD
		4. Discharge Date – The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.
		5. Gestational Age — Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD.
		6. ICD-10-CM Other Diagnosis Codes - The International Classification of
		Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
		7. ICD-10-CM Principal Diagnosis Code - The International Classification of
		Diseases, Tenth Revision, Clinical Modification code associated with the
		diagnosis established after study to be chiefly responsible for occasioning
		the admission of the patient for this hospitalization.
		Updates available at:
		http://manual.jointcommission.org/releases/TJC2015B2/
Exclusions	ICD-9-CM, ICD-10-CM, or SNOMED CT codes for conditions possibly justifying elective delivery prior to 39 weeks gestation.	• ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for conditions possibly justifying elective delivery prior to 39 weeks gestation as defined in Appendix A, Table 11.07

	2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
		• Less than 8 years of age
		Greater than or equal to 65 years of age
		• Length of Stay >120 days
		• Enrolled in clinical trials
		• Gestational Age < 37 or >= 39 weeks or UTD
Exclusion Details	- Conditions possibly justifying elective delivery are represented with the QDM datatype and value set Diagnosis, Active: Conditional Possibly Justifying Elective Delivery Prior to 39 Weeks Gestation (OID: 2.16.840.1.113883.3.117.1.7.1.286)	<ul> <li>Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis         Codes for conditions for possibly justifying elective delivery are excluded.</li> <li>The patient age in years is equal to the Admission Date minus the         Birthdate. Patients less than 8 years of age or greater or equal to 65 years         of age are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the         Admission Date. If the LOS is greater than 120 days, the patient is         excluded.</li> <li>Patients with a Gestational Age less than 37 weeks or equal to or         greater than 39 weeks or UTD are excluded from the measure.</li> <li>Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for         conditions for possibly justifying elective delivery are excluded.</li> <li>The patient age in years is equal to the Admission Date minus the         Birthdate. Patients less than 8 years of age or greater or equal to 65 years         of age are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the         Admission Date. If the LOS is greater than 120 days, the patient is         excluded.</li> </ul>

	2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
		Patients are excluded if "Yes" is selected for Clinical Trial.
		• Patients with a Gestational Age less than 37 weeks or equal to or greater than 39 weeks or UTD are excluded from the measure.
Risk	No risk adjustment or risk stratification	No risk adjustment or risk stratification
Adjustment	Not Applicable	Not Applicable
Stratificatio n	Not Applicable, the measure is not stratified	Not Applicable
Type Score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score
Algorithm	See attached HQMF file. Available at measure-specific web page URL identified in S.1	1. Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.  2. Check ICD-10-CM Principal or Other Diagnosis Codes  a. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.07, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.  b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.07, continue processing and proceed to Gestational Age.  3. Check Gestational Age  a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.  b. If Gestational Age is less than 37 or greater than or equal to 39 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop Processing.  c. If Gestational Age is greater than or equal to 37 and less than 39,

2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
	continue processing and proceed to recheck ICD-10-CM Principal
	Procedure or Other Diagnosis Codes.
	4. Recheck ICD-10-CM Principal or Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on
	Table 11.06.1, the case will proceed to a Measure Category Assignment
	of D and will
	be in the Measure Population. Stop processing.
	b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table
	11.06.1, continue processing and proceed to ICD-10-CM Principal or
	Other Procedure Codes.
	5. Check ICD-10-PCS Principal or Other Procedure Codes
	a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing,
	the case will proceed to a Measure Category Assignment of D and will be
	in the Measure Population. Stop Processing.
	b. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.05, continue processing and proceed to Labor
	i. If Labor is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
	ii. If Labor equals No, the case will proceed to a Measure Category
	Assignment of E and will be in the Numerator Population. Stop
	Processing.
	c. If none of the ICD-9-CM Principal Procedure Codes is on Table 11.05,
	continue processing and proceed to recheck ICD-10-PCS Principal or
	Other Procedure Codes.
	6. Recheck ICD-10-PCS Principal or Other Procedure Codes
	a. If none of the ICD-10-PCS Principal or Other Procedure Code is on Table
	11.06, the case will proceed to a Measure Category Assignment of D and
	will be in the Measure Population. Stop Processing.
	b. If at least one of the ICD-10-PCS Principal or Other Procedure Code is
	on Table 11.06, continue processing and proceed to Labor.

2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
	7. Check Labor
	a. If Labor is missing, the case will proceed to a Measure Category
	Assignment of X and will be rejected. Stop Processing.
	b. If Labor equals Yes, the case will proceed to a Measure Category
	Assignment of D and will be in the Measure Population. Stop processing.
	c. If Labor equals No, continue processing and proceed to Spontaneous
	Rupture of Membranes.
	8. Check Prior Uterine Surgery
	a. If Prior Uterine Surgery is missing, the case will proceed to a Measure
	Category Assignment of X and will be rejected. Stop Processing.
	b. If Prior Uterine Surgery equals Yes, the case will proceed to a Measure
	Category Assignment of D and will be in the Measure Population. Stop
	processing.
	c. If Prior Uterine Surgery equals No, the case will proceed to a Measure
	Category Assignment of E and will be in the Numerator Population. Stop
	Processing. Available at measure-specific web page URL identified in
	S.1.1. Start processing. Run cases that are included in the PC-Mother
	Initial Patient Population and pass the edits defined in the Transmission
	Data Processing Flow: Clinical through this measure.
	2. Check ICD 10 CM Principal or Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is
	on Table 11.07, the case will proceed to a Measure Category Assignment
	of B and will not be in the Measure Population. Stop processing.
	b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table
	11.07, continue processing and proceed to Clinical Trial.

2829: PC-01 Elective Delive	ry 0469: PC-01 Elective Delivery
	3. Check Clinical Trial
	a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
	b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop Processing.
	c. If Clinical Trial equals No, continue processing and proceed to Gestational Age.
	4. Check Gestational Age
	a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
	b. If Gestational Age is less than 37 or greater than or equal to 39 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop Processing.
	c. If Gestational Age is greater than or equal to 37 and less than 39, continue processing and proceed to recheck ICD 10 CM Principal Procedure or Other Diagnosis Codes.
	5. Recheck ICD-10-CM Principal or Other Diagnosis Codes
	a. If at least one of the ICD 10 CM Principal or Other Diagnosis Code is on Table 11.06.1, the case will proceed to a Measure Category Assignment

2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
	of D and will
	be in the Measure Population. Stop processing.
	b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.06.1, continue processing and proceed to ICD-10-CM Principal or
	Other Procedure Codes.
	6. Check ICD-10-PCS Principal or Other Procedure Codes
	a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing, the case will proceed to a Measure Category Assignment of D and will be
	in the Measure Population. Stop Processing.
	b. If at least one of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.05, continue processing and proceed to Labor
	i. If Labor is missing, the case will proceed to a Measure Category  Assignment of X and will be rejected. Stop Processing.
	ii. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop Processing.
	iii. If Labor equals No, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop Processing.
	c. If none of the ICD-9-CM Principal Procedure Codes is on Table 11.05, continue processing and proceed to recheck ICD-10-PCS Principal or

2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
	Other Procedure Codes.
	7. Recheck ICD-10-PCS Principal or Other Procedure Codes
	a. If none of the ICD-10-PCS Principal or Other Procedure Code is on Table
	11.06, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop Processing.
	b. If at least one of the ICD-10 PCS Principal or Other Procedure Code is
	on Table 11.06, continue processing and proceed to Labor.
	8. Check Labor
	a. If Labor is missing, the case will proceed to a Measure Category
	Assignment of X and will be rejected. Stop Processing.
	b. If Labor equals Yes, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
	c. If Labor equals No, continue processing and proceed to Spontaneous Rupture of Membranes.
	9. Check Prior Uterine Surgery
	a. If Prior Uterine Surgery is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop Processing.
	b. If Prior Uterine Surgery equals Yes, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

	2829: PC-01 Elective Delivery	0469: PC-01 Elective Delivery
		c. If Prior Uterine Surgery equals No, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop Processing. Available at measure specific web page URL identified in S.1
Submission items	5.1 Identified measures: 0469 : PC-01 Elective Delivery	5.1 Identified measures:
	5a.1 Are specs completely harmonized? Yes	5a.1 Are specs completely harmonized?
	5a.2 If not completely harmonized, identify difference, rationale, impact: The measures are completely harmonized to the extent possible, given the fact that the data source for #0469 is the paper medical record, and the data source for #2829 is the electronic health record.	5a.2 If not completely harmonized, identify difference, rationale, impact: Not Applicable
	Health record.	5b.1 If competing, why superior or rationale for additive value: Not Applicable
	5b.1 If competing, why superior or rationale for additive value: Not Applicable.	

# Comparison of NQF 2830 and 0480

	2830: PC-05 Exclusive Breast Milk Feeding	0480: PC-05 Exclusive Breast Milk Feeding
Steward	The Joint Commission	The Joint Commission
Description	PC-05 assesses the number of newborns exclusively fed breast milk	PC-05 assesses the number of newborns exclusively fed breast milk

	2830: PC-05 Exclusive Breast Milk Feeding	0480: PC-05 Exclusive Breast Milk Feeding
	during the newborn's entire hospitalization. This measure is a part	during the newborn's entire hospitalization. This measure is a part of a
	of a set of five nationally implemented measures that address	set of five nationally implemented measures that address perinatal care
	perinatal care (PC-01: Elective Delivery, PC-02: Cesarean Section,	(PC-01: Elective Delivery, PC-02: Cesarean Birth, PC-03: Antenatal
	PC-03: Antenatal Steroids, PC-04: Health Care-Associated	Steroids, PC-04: Health Care-Associated Bloodstream Infections in
	Bloodstream Infections in Newborns). PC-05, Exclusive Breast Milk	Newborns).
	Feeding, is one of two measures in this set that have been	
	reengineered as eCQMs and are included in the EHR Incentive	
	Program and Hospital Inpatient Quality Reporting Program.	
Туре	Process	Process
Data	Electronic Clinical Data, Electronic Clinical Data : Electronic Health	Electronic Clinical Data, Paper Medical Records Each data element in the
Source	Record Hospitals report EHR data using Certified Electronic Health	data dictionary includes suggested data sources. The data are collected
	Record Technology (CEHRT), and by submitting Quality Reporting	using contracted Performance Measurement Systems (vendors) that
	Document Architecture Category 1 (QRDA-1).	develop data collection tools based on the measure specifications. The
	No data collection instrument provided Attachment	tools are verified and tested by Joint Commission staff to confirm the
	ExclusiveBreastMilkFeeding_v4_Fri_Nov_13_10.29.14_CST_2015.xl	accuracy and conformance of the data collection tool with the measure
	S	specifications. The vendor may not offer the measure set to hospitals
		until verification has been passed.
		No data collection instrument provided Attachment
		PC05_ICD_Code_Tables.xlsx
Level	Facility, Population : National	Facility, Population : National
Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility
Numerator	Newborns that were fed breast milk only since birth	Newborns that were fed breast milk only since birth
Statement		
Numerator	- Administration of breast milk is represented with the QDM	One data element is used to calculate the numerator:
Details	datatype and value set of Substance, Administered: Breast Milk	1. Exclusive Breast Milk Feeding - Documentation that the newborn
	(OID: 2.16.840.1.113883.3.117.1.7.1.30)	was exclusively fed breast milk during the entire hospitalization.
	- Administration of other dietary intake is represented with	Allowable Values: Yes or No/UTD. Cases are eligible for the numerator
	Substance, Administered: Dietary Intake Other than Breast Milk	when allowable value = yes. Updates available at:
	(OID: 2.16.840.1.113883.3.117.1.7.1.27)	http://manual.jointcommission.org/releases/ <del>TJC2015B2</del> TJC2016A/

http://n Denominat Inpatient Encounters are represented using the QDM datatype and Ten data	erm liveborn newborns discharged alive from the hospital with CM Principal Diagnosis Code for single liveborn newborn as in Appendix A, Table 11.20.1 available at: manual.jointcommission.org/releases/TJC2015B2TJC2016A/a elements are used to calculate the denominator: ission Date – The month, day and year of admission to acute
2.16.840.1.113883.3.117.1.7.1.25). Length of stay is calculated within the measure based on encounter start and end dates.  Single term newborns are represented by the following QDM datatypes and value sets:  o Physical Exam, Performed: Estimated Gestational Age at Birth (Result>=37 weeks) using Estimated Gestational Age at Birth SNOMEDCT Value Set (OID: 2.16.840.1.113762.1.4.1045.47)  o Diagnosis, Active: Single Live Birth using Single Live Birth SNOMEDCT Value Set (2.16.840.1.113883.3.117.1.7.1.25)  o Diagnosis, Active Single Live Born Newborn Born in Hospital using Single Live Born Newborn Born in Hospital Grouping Value Set (2.16.840.1.113883.3.117.1.7.1.26)  - Galactosemia is represented using the QDM datatype and value set of Diagnosis, Active: Galactosemia (OID: 2.16.840.1.113883.3.117.1.7.1.35)  - Parenteral Nutrition is represented using the QDM datatype and value set of Procedure, Performed: Parenteral	ission to NICU - Documentation that the newborn was admitted to onatal Intensive Care Unit (NICU) at this hospital any time during pitalization. Allowable values: Yes or No/UTD date - The month, day and year the patient was born.  Harge Date – The month day and year the patient was discharged cute care, left against medical advice or expired during the stay.  Harge Disposition - The place or setting to which the patient was

2830: PC-05 Exclusive Breast Milk Feeding	0480: PC-05 Exclusive Breast Milk Feeding
	of Diseases, Tenth Revision, Procedure Coding System code that identifies
	the principal procedure performed during this hospitalization. The
	principal procedure is the procedure performed for definitive treatment
	rather than diagnostic or exploratory purposes, or which is necessary to
	take care of a complication.
	10. Term Newborn - Documentation that the newborn was at term or >=
	37 completed weeks of gestation at the time of birth. Allowable values:
	Yes or No/UTD
	<u>Updates available at:</u>
	http://manual.jointcommission.org/releases/TJC2016A/Eleven data
	elements are used to calculate the denominator:
	1. Admission Date – The month, day and year of admission to acute
	inpatient care.
	2. Admission to NICU - Documentation that the newborn was admitted to
	the Neonatal Intensive Care Unit (NICU) at this hospital any time during
	the hospitalization. Allowable values: Yes or No/UTD
	3. Birthdate - The month, day and year the patient was born.
	4. Clinical Trial - Documentation that during this hospital stay the patient
	was enrolled in a clinical trial in which patients who are newborns were
	being studied. Allowable values: Yes or No/UTD
	5. Discharge Date – The month day and year the patient was discharged
	from acute care, left against medical advice or expired during the stay.
	6. Discharge Disposition - The place or setting to which the patient was
	discharged.
	7. ICD-10-CM Other Diagnosis Codes - The International Classification of
	Diseases, Tenth Revision, Clinical Modification codes associated with the
	secondary diagnoses for this hospitalization.
	8. ICD-10-PCS Other Procedure Codes - The International Classification of
	Diseases, Tenth Revision, Procedure Coding System code that identifies
	significant procedures performed other than the principal procedure

lusive Breast Milk Feeding
incipal Diagnosis Code — The International Classification of Revision, Clinical Modification code associated with the ished after study to be chiefly responsible for occasioning of the patient for this hospitalization.  Principal Procedure Code — The International Classification of the Revision, Procedure Coding System code that identifies because performed during this hospitalization. The lure is the procedure performed for definitive treatment prostic or exploratory purposes, or which is necessary to emplication.  Form — Documentation that the newborn was at term or >= receks of gestation at the time of birth. Allowable values:  Ile at:  District on the procedure Code of ICD-10-PCS Other Procedure iteral infusion as defined in Appendix A, Table 11.22 eath  1 > 120 days  District of the procedure of the procedure in Appendix A, Table 11.22 eath  1 > 120 days  District of the procedure in Appendix A, Table 11.22 eath  1 > 120 days  District of the procedure in Appendix A, Table 11.22 eath  2 - 120 days  District of the procedure in Appendix A, Table 11.22 eath  2 - 120 days  District of the procedure in Appendix A, Table 11.22 eath  2 - 120 days  District of the procedure in Appendix A, Table 11.22 eath  District of the procedure in Appendix A, Table 11.22 eath  District of the procedure in Appendix A, Table 11.22 eath  District of the procedure in Appendix A, Table 11.22 eath  District of the procedure in Appendix A, Table 11.22 eath  District of the procedure in Appendix A, Table 11.22 eath  District of the procedure in Appendix A, Table 11.22 eath
ent Admission to NICU is used to determine if the patient of the NICU.
nical ferro are i ent

	2830: PC-05 Exclusive Breast Milk Feeding	0480: PC-05 Exclusive Breast Milk Feeding
	encounter. o facility location: Neonatal Intensive Care Unit (NICU) (OID: 2.16.840.1.113883.3.117.1.7.1.75) o discharge status: Patient Expired (OID: 2.16.840.1.113883.3.117.1.7.1.309) o discharge status: Discharge to Acute Care Facility (OID: 2.16.840.1.113883.3.117.1.7.1.87)	<ul> <li>Patients with ICD-10-CM Other Diagnosis Codes for galactosemia are excluded.</li> <li>Patients with ICD-10-PCS Principal Procedure Code or ICD-10-PMS Other Procedure Codes for parenteral infusion are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days the patient is excluded.</li> <li>The data element Discharge Disposition is used to determine if the patient was transferred to another hospital or expired.</li> <li>The data element Term Newborn is used to determine if the patient was not term or &lt; 37 completed weeks of gestation. The data element Admission to NICU is used to determine if the patient was admitted to the NICU.</li> <li>Patients with ICD-10-CM Other Diagnosis Codes for galactosemia are excluded.</li> </ul>
		<ul> <li>Patients with ICD-10-PCS Principal Procedure Code or ICD-10-PMS         Other Procedure Codes for parenteral infusion are excluded.         <ul> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days the patient is excluded.</li> <li>Patients are excluded if "Yes" is selected for Clinical Trial.</li> <li>The data element Discharge Disposition is used to determine if the patient was transferred to another hospital or expired.</li> <li>The data element Term Newborn is used to determine if the patient was not term or &lt; 37 completed weeks of gestation.</li> </ul> </li> </ul>
Risk	No risk adjustment or risk stratification	No risk adjustment or risk stratification
Adjustment	Not Applicable	Not Applicable
Stratificatio n	Not Applicable	Not Applicable
Type Score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score

	2830: PC-05 Exclusive Breast Milk Feeding	0480: PC-05 Exclusive Breast Milk Feeding
Algorithm	See attached HQMF file Available at measure-specific web page URL identified in S.1	1. Start processing. Run cases that are included in the PC-Newborn Initial Patient Newborns with Breast Feeding and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.  2. Check Discharge Disposition  a. If Discharge Status equals 4, 6, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.  b. If Discharge Status equals 1, 2, 3, 5, 7, 8, continue processing and proceed to Term Newborn.  3. Check Term Newborn  a. If Term Newborn is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.  b. If Term Newborn equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.  c. If Term Newborn equals No, continue processing and proceed to Admission to NICU.  4. Check Admission to NICU is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.  b. If Admission to NICU equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.  c. If Admission to NICU equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.  c. If Admission to NICU equals No, continue processing and proceed to Exclusive Breast Milk Feeding  a. If Exclusive Breast Milk Feeding is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.  b. If Exclusive Breast Milk Feeding is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
		Measure Category Assignment of E and will be in the Numerator Population. Stop processing.

2830: PC-05 Exclusive Breast Milk Feeding	0480: PC-05 Exclusive Breast Milk Feeding
	c. If Exclusive Breast Milk Feeding equals No, the case will proceed to a
	Measure Category Assignment of D and will be in the Measure
	Population. Stop processing. Available at measure-specific web page URL
	identified in S.1.1. Start processing. Run cases that are included in the PC
	Newborn Initial Patient Newborns with Breast Feeding and pass the edits
	defined in the Transmission Data Processing Flow: Clinical through this
	measure.
	2. Check Discharge Disposition
	a. If Discharge Status equals 4, 6, the case will proceed to a Measure
	Category Assignment of B and will not be in the measure population. Stop
	<del>processing.</del>
	b. If Discharge Status equals 1, 2, 3, 5, 7, 8, continue processing and
	<del>proceed to Clinical Trial.</del>
	3. Check Clinical Trial
	a. If Clinical Trial is missing, the case will proceed to a Measure Category
	Assignment of X and will be rejected. Stop processing.
	b. If Clinical Trial equals Yes, the case will proceed to a Measure Category
	Assignment of B and will not be in the measure population. Stop
	<del>processing.</del>
	c. If Clinical Trial equals No, continue processing and proceed to Term
	Newborn.
	4. Check Term Newborn
	a. If Term Newborn is missing, the case will proceed to a Measure
	Category Assignment of X and will be rejected. Stop processing.
	b. If Term Newborn equals Yes, the case will proceed to a Measure
	Category Assignment of B and will not be in the measure population. Stop
	<del>processing.</del>
	c. If Term Newborn equals No, continue processing and proceed to
	Admission to NICU.

	2830: PC-05 Exclusive Breast Milk Feeding	0480: PC-05 Exclusive Breast Milk Feeding
		5. Check Admission to NICU
		a. If Admission to NICU is missing, the case will proceed to a Measure
		Category Assignment of X and will be rejected. Stop processing.
		b. If Admission to NICU equals Yes, the case will proceed to a Measure
		Category Assignment of B and will not be in the measure population. Stop
		processing.
		c. If Admission to NICU equals No, continue processing and proceed to
		Exclusive Breast Milk Feeding.
		6. Check Exclusive Breast Milk Feeding
		a. If Exclusive Breast Milk Feeding is missing, the case will proceed to a
		Measure Category Assignment of X and will be rejected. Stop processing.
		b. If Exclusive Breast Milk Feeding equals Yes, the case will proceed to a
		Measure Category Assignment of E and will be in the Numerator
		Population. Stop processing.
		c. If Exclusive Breast Milk Feeding equals No, the case will proceed to a
		Measure Category Assignment of D and will be in the Measure
		Population. Stop processing. Available at measure specific web page URL
		identified in S.1
Submission	5.1 Identified measures: 0480 : PC-05 Exclusive Breast Milk Feeding	5.1 Identified measures:
items		
	5a.1 Are specs completely harmonized? Yes	5a.1 Are specs completely harmonized?
	5a.2 If not completely harmonized, identify difference, rationale,	5a.2 If not completely harmonized, identify difference, rationale, impact:
	impact: #0480: Exclusive Breast Milk Feeding: The measures are	Not Applicable
	completely harmonized to the extent possible, given the fact that	
	the data source for #0480 is the paper medical record, and the data	5b.1 If competing, why superior or rationale for additive value: Not
	source for #2830 is the electronic health record.	Applicable
	5b.1 If competing, why superior or rationale for additive value: Not	

	2830: PC-05 Exclusive Breast Milk Feeding	0480: PC-05 Exclusive Breast Milk Feeding
	Applicable	

# Comparison of NQF 2892 and 0471

	2892: Birthrisk Cesarean Birth Measure	0471: PC-02 Cesarean Birth
Steward	Birthrisk.com, LLC.	The Joint Commission
Description	This is a measure of the effect that obstetrical care provider's labor management strategies have on their laboring patient's risk for cesarean birth. The target population is limited to women who attempt labor with a singleton vertex pregnancy without a history of a prior cesarean birth and give birth between 37 and 42 weeks of	This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean birth. This measure is part of a set of five nationally implemented measures that address perinatal care (PC-01: Elective Delivery, PC-03: Antenatal Steroids, PC-04: Health Care-Associated Bloodstream Infections in
	gestation.	Newborns, PC-05: Exclusive Breast Milk Feeding).
Туре	Outcome	Outcome
Data	Other Birth Certificate Records.	Paper Medical Records Each data element in the data dictionary includes
Source	No data collection instrument provided No data dictionary	suggested data sources. The data are collected using contracted
		Performance Measurement Systems (vendors) that develop data
		collection tools based on the measure specifications. The tools are
		verified and tested by Joint Commission staff to confirm the accuracy and
		conformance of the data collection tool with the measure specifications.
		The vendor may not offer the measure set to hospitals until verification
		has been passed.
		No data collection instrument provided Attachment
		PC02_ICD_and_CS_Direct_Standardization_Template_Nulliparous_Births.
		xlsx
Level	Facility, Clinician : Individual	Facility, Population : National
Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility
Numerator	Number of cesarean births.	The outcome being measured is: Patients with cesarean births with ICD-
Statement		10-PCS Principal Procedure Code or ICD-10-PCS Other Procedure Codes

	2892: Birthrisk Cesarean Birth Measure	0471: PC-02 Cesarean Birth
		for cesarean birth as defined in Appendix A, Table 11.06 available at:
		http://manual.jointcommission.org/releases/ <del>TJC2015B2</del> TJC2016A/
Numerator	The number of births with Method of Delivery reported as	Two data elements are used for the observed outcome and to calculate
Details	Cesarean. U.S. Standard Certificate of Birth item number 46	the numerator:
	(METHOD OF DELIVERY), processing variable: ROUT=4.	1. ICD-10-PCS Other Procedure Codes - The International Classification of
		Diseases, Tenth Revision, Procedure Coding System code that identifies
		significant procedures performed other than the principal procedure
		during this hospitalization.
		2. ICD-10-PCS Principal Procedure Code - The International Classification
		of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) code
		that identifies the principal procedure performed during this
		hospitalization. The principal procedure is the procedure performed for
		definitive treatment rather than diagnostic or exploratory purposes, or
		which is necessary to take care of a complication.
Denominat	Women without a history of a prior cesarean birth who attempted	The outcome target population being measured is: Nulliparous patients
or	labor and gave birth to a single baby in vertex presentation	delivered of a live term singleton newborn in vertex presentation ICD-10-
Statement	between 37 and 42 weeks of gestation.	PCS Principal or Other Diagnosis Codes for delivery as defined in
		Appendix A, Tables 11.01.1 available at:
		http://manual.jointcommission.org/releases/ <del>TJC2015B2</del> TJC2016A/
Denominat	The denominator is all of the women who gave birth during the	Seven data elements are used to identify the outcome target population
or Details	specified time period as determined by an existing Certificate of	and to calculate the denominator:
	Birth. Data collection items from the U.S. Standard Certificate of	1. Admission Date – The month, day and year of admission to acute
	Birth are listed by Item Number, Description and (Processing	inpatient care.
	Variable(s)):	2. Birthdate - The month, day and year the patient was born.
	Item 2 TIME OF BIRTH (TB)	3. Discharge Date – The month day and year the patient was discharged
	Item 4 DATE OF BIRTH - infant (IDOB_YR, IDOB_MO, IDOB_DY)	from acute care, left against medical advice or expired during the stay.
	Item 5 FACILITY NAME (FNAME)	4. Gestational Age – Documentation of the weeks of gestation completed
	Item 6 CITY, TOWN OR LOCATION OF BIRTH (FLOC)	at the time of delivery. Allowable Values: 1-50 or UTD.
	Item 7 COUNTY OF BIRTH (CNAME)	5. ICD-10-CM Other Diagnosis Codes - The International Classification of
		<u>Diseases, Tenth Revision, Clinical Modification codes associated with the</u>

#### 2892: Birthrisk Cesarean Birth Measure

Item 8b DATE OF BIRTH - mother (MDOB\_YR, MDOB\_MO, MDOB\_DY)

Item 27 ATTENDANT'S NAME, TITLE, AND NPI (ATTENDN, NPI) Item 28 MOTHER TRANSFERRED FOR MATERNAL MEDICAL OR FETAL INDICATIONS FOR DELIVERY? (TRAN, NFACL)

Item 31 MOTHER'S HEIGHT (HFT, HIN)

Item 32 MOTHER'S PREPREGNANCY WEIGHT (PWGT)

Item 33 MOTHER'S WEIGHT AT DELIVERY (DWGT)

Item 35a NUMBER OF PREVIOUS LIVE BIRTHS - NOW LIVING (PLBL)
Item 35b NUMBER OF PREVIOUS LIVE BIRTHS - NOW DEAD (PLBD)

Items 41 RISK FACTORS IN THIS PREGNANCY - Mother had a previous cesarean delivery (PCES)

Item 44 ONSET OF LABOR - Precipitous labor, Prolonged Labor (PRIC, PROL)

Item 45 CHARACTERISTICS OF LABOR AND DELIVERY – Induction of labor, Augmentation of labor, Non-vertex presentation (INDL, AUGL, NVPR)

Item 46 METHOD OF DELIVERY- Fetal presentation at birth, Final route and method of delivery, If cesarean, was a trial of labor attempted? (PRES, ROUT, TLAB)

Item 49 BIRTHWEIGHT (BWG)

Item 50 OBSTETRIC ESTIMATION OF GESTATION (OWGEST) Item 52 PLURALITY (PLUR)

#### 0471: PC-02 Cesarean Birth

secondary diagnoses for this hospitalization.

6. ICD-9-CM Principal Diagnosis Code - The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.

7. Number of Previous Live Births - The number of live deliveries the patient experienced prior to current hospitalization. Allowable Values: 0-50 or UTD.

#### Updates available at:

http://manual.jointcommission.org/releases/TJC2016A/Eight data elements are used to identify the outcome target population and to calculate the denominator:

- 1. Admission Date The month, day and year of admission to acute inpatient care.
- 2. Birthdate The month, day and year the patient was born.
- 3. Clinical Trial Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients with pregnancy were being studied. Allowable values: Yes or No/UTD
- 4. Discharge Date The month day and year the patient was discharged from acute care, left against medical advice or expired during the stay.

  5. Gostational Aga Documentation of the weeks of gostation complete.
- 5. Gestational Age Documentation of the weeks of gestation completed at the time of delivery. Allowable Values: 1-50 or UTD.
- 6. ICD 10 CM Other Diagnosis Codes—The International Classification of Diseases, Tenth Revision, Clinical Modification codes associated with the secondary diagnoses for this hospitalization.
- 7. ICD 9 CM Principal Diagnosis Code The International Classification of Diseases, Tenth Revision, Clinical Modification code associated with the diagnosis established after study to be chiefly responsible for occasioning the admission of the patient for this hospitalization.
- 8. Number of Previous Live Births The number of live deliveries the

	2892: Birthrisk Cesarean Birth Measure	0471: PC-02 Cesarean Birth
Exclusions	The denominator excludes women with any of the following:	patient experienced prior to current hospitalization. Allowable Values: 0-50 or UTD. Updates available at: http://manual.jointcommission.org/releases/TJC2015B2/  • ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for multiple gestations and other presentations as defined in
	<ol> <li>Gestational age at birth of less than 37 weeks or greater than 42 weeks.</li> <li>History of a prior cesarean birth.</li> <li>Multiple gestation.</li> <li>Not in vertex presentation.</li> <li>Did not attempt to have a vaginal birth by attempting labor.</li> </ol>	Appendix A, Table 11.09  • Less than 8 years of age  • Greater than or equal to 65 years of age  • Length of Stay >120 days  • Enrolled in clinical trials  • Gestational Age < 37 weeks or UTD
Exclusion Details	1. Gestational age at birth of less than 37 weeks or greater than 42 weeks: Exclude women whose birth certificate item number 50 (OBSTETRIC ESTIMATION OF GESTATION), processing variable: OWGEST<37. Exclude women whose birth certificate item number 50 (OBSTETRIC ESTIMATION OF GESTATION), processing variable: OWGEST>42.  2. History of a prior cesarean birth: Exclude women whose birth certificate item number 41 (RISK FACTORS IN THIS PREGNANCY), processing variable: PCES=Y.  3. Multiple gestation: Exclude women whose birth certificate item number 52 (PLURALITY), processing variable: PLUR>1.  4. Not in vertex presentation: Exclude women whose birth certificate item number 45 (CHARACTERISTICS OF LABOR AND DELIVERY), processing variable: NVPR=Y. Exclude women whose birth certificate item number 46 (METHOD OF DELIVERY), processing variable: PRES>1.	<ul> <li>Patients with ICD-10-CM Principal Diagnosis Code or Other Diagnosis Codes for multiple gestations and other presentations are excluded.</li> <li>The patient age in years is equal to the Admission Date minus the Birthdate. Patients less than 8 years of age or greater or equal to 65 years of age are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days, the patient is excluded.</li> <li>Patients with a Gestational Age less than 37 weeks or UTD are excluded from the measure. Patients with ICD 10 CM Principal Diagnosis Code or Other Diagnosis Codes for multiple gestations and other presentations are excluded.</li> <li>The patient age in years is equal to the Admission Date minus the Birthdate. Patients less than 8 years of age or greater or equal to 65 years of age are excluded.</li> <li>Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days, the patient is</li> </ul>

	2892: Birthrisk Cesarean Birth Measure	0471: PC-02 Cesarean Birth
	5. Did not attempt to have a vaginal birth by attempting labor: Exclude women whose birth certificate item number 46 (METHOD OF DELIVERY), processing variable: ROUT=4 AND TLAB=N UNLESS birth certificate item number 44 (ONSET OF LABOR), processing variable: PRIC=Y OR birth certificate item number 44 (ONSET OF LABOR), processing variable: PROL=Y OR birth certificate item number 45 (CHARACTERISTICS OF LABOR AND DELIVERY), processing variable: INDL=Y OR birth certificate item number 45 (CHARACTERISTICS OF LABOR AND DELIVERY), processing variable: AUGL=Y.	excluded.  • Patients are excluded if "Yes" is selected for Clinical Trial.  • Patients with a Gestational Age less than 37 weeks or UTD are excluded from the measure.
Risk Adjustment Stratificatio	Other Cohort comparison The statistical risk model uses a cohort comparison method derived from the concept behind logistic regression methodology. Logistic regression methodology creates an equation based on prior outcomes which is then used to predict the number of expected c Provided in response box S.15a  N/A	No risk adjustment or risk stratification  Not Applicable Other Direct rate standardization to the distribution of the 2006 US population of nulliparous births. See attached spreadsheet for age bands used in the direct standardization.  Not Applicable  Available in attached Excel or csv file at S.2b  Not Applicable The Stratification Table used for direct standardization
n	N/A	includes the Set Number, Stratified By, and the Age Stratum (Allowable Value). The Age Stratum refers to Patient Age which is calculated by the data element Admission Date minus the data element Bir
Type Score Algorithm	Rate/proportion better quality = lower score  1. The target population is created from women who gave birth during the specified time period as determined by an existing Birth Certificate. Required data collection from each birth is obtained according to the U.S. Standard Certificate of Birth Item Number, Description and (Processing Variable(s)) as previously listed in the denominator details.  2. Women are excluded from the denominator if they gave birth prior to 37 weeks or after 42 weeks, had a history of a prior	Rate/proportion better quality = lower score  1. Start processing. Run cases that are included in the PC-Mother Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.  2. Check ICD-10-CM Principal or Other Diagnosis Codes  a. If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.09, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.  b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table 11.09, continue processing and proceed to recheck ICD-10-CM Principal

#### 2892: Birthrisk Cesarean Birth Measure

cesarean birth, had a multiple gestation, did not have a vertex presentation or did not attempt to have a vaginal birth by attempting labor as previously illustrated in the denominator exclusion details.

- 3. Each birth record is assigned a predicted risk of cesarean birth (inherent risk) by finding a cohort of 100 similar births in our existing database and using the number of cesarean births in the cohort as the assigned risk. Similar has been previously defined in the detailed risk model specifications.
- 4. The actual cesarean birth rate is determined by dividing the number of cesarean births by the number of births in the target population. The actual cesarean birth rate is determined for each obstetrical care provider and facility in the target population.
- 5. The expected cesarean birth rate is determined by calculating the average of the inherent risk assigned to each birth in the target population. The expected cesarean birth rate is determined for each obstetrical care provider and facility in the target population.
- 6. The risk adjustment is created by taking the actual cesarean birth rate and dividing it by the expected cesarean birth rate. The risk adjustment is determined for each obstetrical care provider and facility in the target population.
- 7. The Birthrisk Cesarean Birth Measure is created by multiplying the risk adjustment by a constant. That constant is the average inherent risk for all births occurring in the same time frame in the database as the target population and in the same state regardless of the provider or facility. The Birthrisk Cesarean Birth Measure is created for each obstetrical care provider and facility in the target population. Available at measure-specific web page URL

#### 0471: PC-02 Cesarean Birth

- or Other Diagnosis Codes.
- 3. Recheck ICD-10-CM Principal or Other Diagnosis Codes
- a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table 11.08, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- <u>b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is</u> on Table 11.08, continue processing and proceed to Gestational Age.
- 4. Check Gestational Age
- <u>a. If Gestational Age is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</u>
- b. If Gestational Age is less than 37 or equal to a Not Unable to Determine Value, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
- c. If Gestational Age is greater than or equal to 37, continue processing and proceed to Parity.
- 5. Check Number of Previous Live Births
- <u>a. If Number of Previous Live Births is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.</u>
- b. If Number of Previous Live Births is greater than 0, the case will proceed to a Measure Category Assignment of B for and will not be in the measure population. Stop processing.
- c. If Number of Previous Live Births equals a Non Unable to Determine Value, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
- d. If Parity equals 0, continue processing and proceed to check ICD-10-PCS Principal or Other Procedure Codes.
- 6. Check ICD-10-PCS Principal or Other Procedure Codes
- a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing or none of the ICD-10-PCS Principal or Other Procedure Codes is on Table 11.06, the case will proceed to a Measure Category Assignment of D and will be in the measure population. Stop processing.

2892: Birthrisk Cesarean Birth Measure	0471: PC-02 Cesarean Birth
identified in S.1	b. If at least one of the ICD-10-PCS Principal or Other Procedure Code is
	on Table 11.06, the case will proceed to a Measure Category Assignment
	of E and will be in the Numerator Population. Stop processing. Available
	at measure-specific web page URL identified in S.1 1. Start processing.
	Run cases that are included in the PC Mother Initial Patient Population
	and pass the edits defined in the Transmission Data Processing Flow:
	Clinical through this measure.
	2. Check ICD-10-CM Principal or Other Diagnosis Codes
	a. If at least one of the ICD-10-CM Principal or Other Diagnosis Code is on
	Table 11.09, the case will proceed to a Measure Category Assignment of
	B and will not be in the measure population. Stop processing.
	b. If none of the ICD-10-CM Principal or Other Diagnosis Code is on Table
	11.09, continue processing and proceed to recheck ICD-10-CM Principal
	<del>or Other Diagnosis Codes.</del>
	3. Recheck ICD-10-CM Principal or Other Diagnosis Codes
	a. If none of the ICD-10-CM Principal or Other Diagnosis Codes is on Table
	11.08, the case will proceed to a Measure Category Assignment of B and
	will not be in the measure population. Stop processing.
	b. If at least one of the ICD-10-CM Principal or Other Diagnosis Codes is
	on Table 11.08, continue processing and proceed to Clinical Trial.
	4. Check Clinical Trial
	a. If Clinical Trial is missing, the case will proceed to a Measure Category
	Assignment of X and will be rejected. Stop processing.
	b. If Clinical Trial equals Yes, the case will proceed to a Measure Category
	Assignment of B and will not be in the measure population. Stop
	<del>processing.</del>
	c. If Clinical Trial equals No, continue processing and proceed to
	Gestational Age.
	5. Check Gestational Age

	2892: Birthrisk Cesarean Birth Measure	0471: PC-02 Cesarean Birth
		a. If Gestational Age is missing, the case will proceed to a Measure
		Category Assignment of X and will be rejected. Stop processing.
		b. If Gestational Age is less than 37 or equal to a Not Unable to Determine
		Value, the case will proceed to a Measure Category Assignment of B and
		will not be in the measure population. Stop processing.
		c. If Gestational Age is greater than or equal to 37, continue processing
		and proceed to Parity.
		6. Check Number of Previous Live Births
		a. If Number of Previous Live Births is missing, the case will proceed to a
		Measure Category Assignment of X and will be rejected. Stop processing.
		b. If Number of Previous Live Births is greater than 0, the case will
		proceed to a Measure Category Assignment of B for and will not be in the
		measure population. Stop processing.
		c. If Number of Previous Live Births equals a Non Unable to Determine
		Value, the case will proceed to a Measure Category Assignment of E and
		will be in the Numerator Population. Stop processing.
		d. If Parity equals 0, continue processing and proceed to check ICD-10-
		PCS Principal or Other Procedure Codes.
		7. Check ICD 10 PCS Principal or Other Procedure Codes
		a. If all of the ICD-10-PCS Principal or Other Procedure Codes are missing
		or none of the ICD-10-PCS Principal or Other Procedure Codes is on Table
		11.06, the case will proceed to a Measure Category Assignment of D and
		will be in the measure population. Stop processing.
		b. If at least one of the ICD-10-PCS Principal or Other Procedure Code is
		on Table 11.06, the case will proceed to a Measure Category Assignment
		of E and will be in the Numerator Population. Stop processing. Available
		at measure specific web page URL identified in S.1
Submission	5.1 Identified measures: 0471 : PC-02 Cesarean Birth	5.1 Identified measures:
items		

2892: Birthrisk Cesarean Birth Measure	0471: PC-02 Cesarean Birth
5a.1 Are specs completely harmonized?	5a.1 Are specs completely harmonized?
5a.2 If not completely harmonized, identify difference, rationale, impact:	5a.2 If not completely harmonized, identify difference, rationale, impact: Not Applicable
5b.1 If competing, why superior or rationale for additive value: The Birthrisk Cesarean Birth Measure is superior to measure #0471 for several reasons.  The case mix used by the Birthrisk Cesarean Birth Measure includes approximately two thirds of pregnant women whereas the case mix for measure #0471 only includes about one third. Measure #0471 uses a case mix suggested by the American College of Obstetricians and Gynecologists (ACOG) in their Evaluation of Cesarean Delivery from 2000. However, ACOG also stated that "The highest variation occurs among nulliparous patients with term singleton fetuses with vertex presentations (NTSV) without other complications." and "Differences in patient characteristics probably account for some of the variations in cesarean delivery rates and explain some of the differences between practitioners and hospitals." in their Evaluation of Cesarean Delivery. Measure #0471 ignores ACOG's statements concerning patients with "other complications" as well as the significant effect on the risk for cesarean birth due to differences in patient characteristics. The Birthrisk Cesarean Birth Measure includes the NTSV pregnancies that are without other complications and accounts for differences in patient characteristics. Additionally, the Birthrisk Cesarean Birth Measure	5b.1 If competing, why superior or rationale for additive value: Not Applicable
includes women who have already had a prior vaginal birth. The case mix used by the Birthrisk Cesarean Birth Measure better reflects the statements made by ACOG in 2000 as to NTSV	

# 2892: Birthrisk Cesarean Birth Measure 0471: PC-02 Cesarean Birth pregnancies and will allow for the improvement of care to not only nulliparous women but also to women who have had a prior vaginal birth.

Including patients with "other complications" in the case mix for measure #0471 results in including women who have contraindications for vaginal birth such as placenta previa, fetal distress prior to labor, medical contraindications for labor, fetal contraindications for labor, women with an un-inducible cervix and women who have requested an elective cesarean birth. An increase or decrease in women with these diagnoses can significantly affect the outcome of the measure resulting in an inaccurate measure of the effect that the obstetrical care provider has on a woman's risk for a cesarean birth. Even one or two additional cesarean births due to these diagnoses can significantly affect the measure as is illustrated in the most important concern below.

Measure #0471 assumes that all nulliparous women with a term single fetus in the vertex position (NTSV) have the same risk for cesarean birth after adjusting for age. However, in addition to maternal age, there are other physical characteristics of the mother and her baby that have been previously proven to significantly affect the risk for a cesarean birth. These include newborn weight, maternal prepregnancy body mass index, maternal height, gestational age and maternal weight gain. In addition, induction of labor has also been previously proven to significantly increase the risk for a cesarean birth. Failure to provide any risk adjustment for all of these previously proven risk factors will result in a misleading measure for obstetrical care providers. For example, analysis of data from millions of women who attempted labor reveals that

# 0471: PC-02 Cesarean Birth 2892: Birthrisk Cesarean Birth Measure inducing labor in a five foot two inch 36 year old nulliparous woman with a starting weight of 175 lbs. who has gained 42 lbs. and is carrying a 4,000 gram baby has a cesarean birth rate of approximately 70%. Whereas a five foot four inch 18 year old nulliparous woman with a starting weight of 115 lbs. who has gained 30 lbs. carrying a 3,500 gram baby who arrives in spontaneous labor has a cesarean birth rate of approximately 7%. This tenfold difference in the rate of cesarean birth due to the physical characteristics of the mother and her baby reveals that using an unadjusted or only age adjusted NTSV cesarean birth rate as a cesarean birth measure may result in simply a measure of the physical characteristics of the woman who are giving birth and not a measure of the effect of the obstetrical care provider's labor management strategies. The most important concern is a major flaw found in the direct standardization technique being used to create the risk adjustment for age. The direct standardization technique used in measure #0471 is based on the work of Main et al. from 2006. The flaw in the direct standardization technique is illustrated by the sample hospital in their study. The sample hospital in their study had approximately 18,000 births over a three year period in order to create a target population of 7,068 nulliparous term singleton vertex (NTSV) births of which only 68 were in the 15 to 19 year old age group. This age group is assigned a weight of 21% in the direct standardization. This means that even though the sample hospital only had 1% of their births in the 15 to 19 year old age group this age group will be used to assign 21% of their cesarean birth

measure. A small change in the number of cesarean births within

2892: Birthrisk Cesarean Birth Measure	0471: PC-02 Cesarean Birth
that age group will result in a large change in their cesarean birth	
measure. Even with 6,000 total births each year the sample hospital	
will only have two patients per month and six patients per quarter	
accounting for 21% of their cesarean birth measure. This will make	
it very difficult for the sample hospital to obtain consistent results	
and this problem would only be magnified if the hospital had fewer	
than 6,000 births per year. If a hospital has the same age	
distribution of NTSV patients as the sample hospital in the study,	
critical analysis reveals that one additional cesarean birth in the 15	
to 19 year old age group per 1,000 total births will increase their	
measure #0471 by five percentage points. This flaw makes	
measure #0471 meaningless not only for hospitals that have an age	
distribution that is similar to the sample hospital but also for	
hospitals whose age distribution is not similar to the national	
average.	
Lastly, the goal of a cesarean birth measure is to measure the effect	
applied by the labor management strategies used by the obstetrical	
care provider. The accuracy of a cesarean birth measure is best	
validated by proving its ability to use the measure to predict future	
outcomes. Despite the fact that measure #0471 was developed	
many years ago this measure has never been validated by using it	
to accurately predict future outcomes. In fact, measure #0471	
relies only on face validity. A cesarean birth measure that cannot	
accurately predict future outcomes is merely an educated guess of	
the risk applied by the obstetrical care provider and not truly a	
measure of the effect of the obstetrical care provider's labor	

management strategies.

# Comparison of NQF 2893 and 2393

	2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
Steward	The Children's Hospital of Philadelphia	Center of Excellence for Pediatric Quality Measurement
Description	The NICU Readmissions metric assess the hospital- or state-level	This measure calculates case-mix-adjusted readmission rates, defined as
	readmission rate at 30 days after a stay in the Neonatal Intensive	the percentage of admissions followed by 1 or more readmissions within
	Care Unit.	30 days, for patients less than 18 years old. The measure covers patients
		discharged from general acute care hospitals, including children's
		hospitals.
Туре	Outcome	Outcome
Data Source	Administrative claims, Electronic Clinical Data: Electronic Health	Administrative claims The measure could be used with state Medicaid or
	Record, Other N/A	all-payer databases. There are several options for calculating rates that
	No data collection instrument provided Attachment	could be compared nationally. CMS could analyze Medicaid claims from
	Data_Dictionary-635948697097724496.xlsx	multiple states. A private payer with data from multiple states could
		compare hospitals from across state lines. Multiple states with all-payer
		databases could combine them to enable cross-state comparisons.
		Individual states could calculate nationally comparable rates using a
		method we have developed by which readmission rates can be
		estimated for Medicaid-insured patients and standardized using a MAX
		reference dataset. Please see the Detailed Measure Specifications
		(provided in the Appendix) for instructions on implementing this
		method.
		No data collection instrument provided Attachment Pediatric_All-
		Condition_Readmission_MeasureNQF2393ICD-9_Data_Dictionary-
		635821585337686047.xlsx
Level	Facility, Population : State	Facility
Setting	Hospital/Acute Care Facility	Hospital/Acute Care Facility

	2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
Numerator Statement	Number of infants with a gestational age between 23-34 weeks who were readmitted to the hospital within 30 days of discharge. These time periods are assessed cumulatively, such that readmissions occurring within prior time periods are included. Reliability is strongest if each health care unit has at least 50 discharges per time unit studied.	The numerator consists of hospitalizations at general acute care hospitals for patients less than 18 years old that are followed by 1 or more readmissions to general acute care hospitals within 30 days. Readmissions are excluded from the numerator if the readmission was for a planned procedure or for chemotherapy.  The measure outcome is a readmission rate, defined as the percentage of index admissions with 1 or more readmissions within 30 days. The readmission rate, unadjusted for case-mix, is calculated as follows: number of index admissions with 1 or more readmissions within 30 days/total number of index admissions
Numerator Details	Number of eligible newborns with an inpatient readmission within 30 days of discharge, who survive to time of hospital discharge. The optimal measure is risk-adjusted using gestational age, race, gender, education, insurance status, and complications (bronchopulmnary dysplasia (BPD), necrotizing enterocolitis (NEC), retinopathy of prematurity (ROP), and intraventricular hemorrhage (IVH)).	A readmission is operationalized as the first unplanned admission to any acute care hospital within 30 days of discharge from a prior hospitalization at an acute care hospital. This prior admission, which serves as the reference point for enumerating 30-day readmissions, is the index admission. Additional admissions within 30 days from discharge from an index admission are not counted as index admissions. An admission more than 30 days from discharge from an index admission is counted as a new index admission.  We chose 30 days as the follow-up period during which to evaluate readmissions for multiple reasons. Readmissions within 30 days seem likely to reflect the quality of care provided both in the hospital and following discharge, which is consistent with the measure's intended purpose of assessing quality not just for a hospital but also for its wider health system. A follow-up period of 30 days is consistent with many readmission measures already in use, including the CMS readmission measures for adults. In addition, when we used a time-to-event curve to evaluate the proportion of readmissions within 1 year that occur within timeframes from 1 day up to 365 days, we observed a smooth curve with

2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
	Readmissions are excluded if they are for a planned procedure or for
	chemotherapy. Readmissions for planned procedures and for
	chemotherapy are part of a patient's intended course of care and thus
	unlikely to be related to health system quality. This measure therefore
	focuses on unplanned readmissions because they are more likely to be
	related to a defect in quality of care during the index admission or during
	the interval between the index admission and readmission. In adult and
	pediatric medicine, most planned readmissions are for planned
	procedures or chemotherapy; therefore, these exclusions are intended
	to capture the majority of planned readmissions.
	We identify planned procedures using an algorithm based on primary
	procedure codes. Expert pediatric clinicians in 15 different procedure-
	oriented specialties reviewed procedures typically performed by their
	specialty. The reviewers indicated which procedures (1) are usually
	planned (defined as planned in more than 80% of cases) and (2) could
	require hospitalization. Admissions for which the primary International
	Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-
	CM) procedure code or the principal International Classification of
	Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS)
	procedure code for a planned procedure coded was 1 of these
	procedures are excluded from readmissions. ICD-9-CM codes will
	henceforth be referred to as ICD-9 codes. ICD-10-CM diagnosis codes and
	ICD-10 Procedure Coding System (PCS) codes will be referred to as ICD-
	10 diagnosis and ICD-10 procedure codes, respectively.
	EXCLUSIONS FROM THE NUMERATOR (READMISSIONS):
	Hospitalizations with a primary ICD-9 code or a principal ICD-10 code
	for a planned procedure (i.e., planned = 1).
	Hospitalizations with a primary ICD-9 or a principal ICD-10 diagnosis or
	procedure code for chemotherapy (i.e., chemo = 1).

	2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
		These exclusions are applied without deleting the records from the dataset as these hospitalizations may still meet criteria for index admissions, detailed in Section S.10.  Variable definitions and ICD-9 or ICD-10 codes for identifying readmissions for planned procedures and for chemotherapy are provided in the Data Dictionary.  If a planned readmission occurs within 30 days of an index admission, it does not count as a readmission against the index admission, and no subsequent admissions occurring within 30 days of discharge from the index admission count as readmissions against the index admission. After 30 days from discharge from the index admission, a new index admission can be counted.
Denominator Statement	Number of newborns with a gestational age between 23-34 weeks discharged from the NICU, based on gestational age field contained in the birth certificate record (best obstetrical estimate).	Hospitalizations at general acute care hospitals for patients less than 18 years old.
Denominator Details	Gestational age between 23 and 34 weeks as defined by the gestational age field in the vital statistics data.	All index hospitalizations are included in the denominator unless excluded based on 1 of the criteria in Sections S.10 and S.11 below.
Exclusions	Infants with a specified congenital anomaly are excluded from the target population.  Infants with a missing gestational age are excluded from the primary analysis. Information about multiple imputation methods to allow for their inclusion are presented in the testing attachment, section 2b7.	EXCLUSIONS FROM THE NUMERATOR (READMISSIONS) AND DENOMINATOR (INDEX HOSPITALIZATIONS)  We exclude certain hospitalizations from the measure entirely (i.e., from the numerator and denominator) based on clinical criteria or for issues of data completeness or quality that could prevent assessment of eligibility for the measure cohort or compromise the accuracy of
	Infants who expired during the neonatal intensive care period are not eligible for a hospital readmission and excluded.  The smallest level of measurement (i.e. hospital, state, etc.) must have a minimum of 50 patients eligible for readmission in a single calendar year.	readmission rates. Hospitalizations are excluded from the measure if they meet any of the following criteria:  1. The hospitalization was at a specialty or non-acute care hospital.  Rationale: The focus of the measure is admissions to hospitals that provide general pediatric acute care. Records for admissions to specialty

2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
	and non-acute care hospitals are therefore omitted from the dataset.
	Because hospital type cannot be determined for records with missing
	data in the hospital type variable, these records are also removed from
	the dataset.
	2. Records for the hospitalization contain incomplete data for variables
	needed to assess eligibility for the measure or calculate readmission
	rates, including hospital type, patient identifier, admission date,
	discharge date, disposition status, date of birth, primary ICD-9 or
	principal ICD-10 diagnosis codes, or gender.
	Rationale: Complete and valid information for the variables listed above
	is needed to define the measure cohort and calculate case-mix-adjusted
	readmission rates. Identifying readmissions within 30 days requires
	information on dates of admission and end-of-service dates and the
	ability to link unique patient identifiers across inpatient claims records.
	Hospital identifiers are needed to determine the hospital at which index
	admissions occurred. The disposition status is needed to determine
	whether a patient was discharged or experienced some other outcome
	(e.g., was transferred to another acute care hospital, left against medical
	advice, died). Establishing a patient's eligibility for membership in the
	pediatric cohort and performing case-mix adjustment requires an
	accurate date of birth and end-of-service date. Because gender is 1 of
	the variables used for case-mix adjustment, episodes of care with
	missing or inconsistent gender cannot be evaluated in the measure.
	3. Records for the hospitalization contain data of questionable quality for
	calculating readmission rates, including
	a. Inconsistent date of birth across records for a patient.
	b. Discharge date prior to admission date.
	c. Admission or discharge date prior to date of birth.
	d. Admission date after a disposition status of death during a prior

2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
	hospitalization.
	Rationale: Complete and valid information for the variables listed above
	is needed to define the measure cohort and calculate case-mix-adjusted
	readmission rates. Identifying readmissions within 30 days requires
	information on dates of admission and end-of-service. A valid disposition
	status is needed to determine whether a patient was discharged or
	experienced some other outcome (e.g., was transferred to another acute
	care hospital, left against medical advice, died). Establishing a patient's
	eligibility for membership in the pediatric cohort and performing case-
	mix adjustment requires an accurate date of birth and end-of-service
	date.
	4. Codes other than ICD-9 or ICD-10 codes are used for the primary
	procedure.
	Rationale: ICD-9 or ICD-10 procedure codes are necessary for applying
	clinical exclusions.
	5. The patient was older than 18 years, 29 days at the time of admission.
	Rationale: This age exclusion limits the population to pediatric patients
	and prevents inclusion of records that overlap with adult readmission
	measures. Age eligibility for inclusion in the measure is based on age at
	the time of discharge from the index admission. Because the focus of the
	measure is pediatric patients, a patient's hospitalization is ineligible for
	inclusion in the measure as an index admission if the patient was 18
	years old or greater at the time of discharge. Because the subsequent
	observation period for readmissions is 30 days, a patient's hospitalization
	is ineligible for inclusion in the measure as a readmission if the patient
	was older than 18 years, 29 days at the start of the readmission.
	6. The hospitalization was for obstetric care, including labor and delivery.
	Rationale: Hospitalizations for obstetric conditions are excluded because
	care related to pregnancy does not generally fall within the purview of

2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
	pediatric providers.
	7. The primary ICD-9 or principal ICD-10 diagnosis code was for a mental
	health condition.
	Rationale: Hospitalizations for mental health conditions are excluded
	because we found that hospitals with high readmission rates for mental
	health hospitalizations tend to have low readmission rates for
	hospitalizations for other conditions, and vice versa. We describe this
	analysis in detail in Section 2b.3 of the Measure Testing Submission
	Form.
	8. The hospitalization was for birth of a healthy newborn.
	Rationale: Hospitalizations for birth of healthy newborns are excluded
	because these hospitalizations, unlike all others, are not for evaluation
	and management of disease.
	EXCLUSIONS FROM THE DENOMINATOR ONLY (INDEX
	HOSPITALIZATIONS ONLY)
	We also apply further exclusions to the denominator only (i.e., these
	hospitalizations are excluded from index hospitalizations but could still
	meet criteria for readmissions). Hospitalizations are excluded from the
	denominator only if they meet any of the following criteria:
	9. The patient was 18 years old or older at the time of discharge.
	Rationale: Age eligibility for inclusion in the measure is based on age at
	the time of discharge from the index admission. Because the measure
	covers pediatric patients, a patient's hospitalization is ineligible for
	inclusion in the measure as an index admission if the patient was 18
	years old or greater at the time of discharge.
	10. The discharge disposition was death.
	Rationale: A patient must be discharged alive from an index admission in
	order to be readmitted. Therefore, any record with a discharge
	disposition of death cannot serve as an index admission.

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	11. The discharge disposition was leaving the hospital against medical
	advice.
	Rationale: A discharge disposition of leaving against medical advice
	indicates that a patient left care before the hospital determined that the
	patient was ready to leave.
	12. The hospital has less than 80% of records with complete patient
	identifier, admission date, and discharge date or less than 80% of records
	with complete primary ICD-9 or principal ICD-10 diagnosis codes.
	(Records for these hospitals are still assessed as possible readmissions,
	but readmission rates are not calculated for these hospitals due to their
	lack of complete data.)
	Rationale: Readmission rates are not calculated for hospitals missing
	large amounts of data for the above variables because these hospitals
	have limited data to accurately apply measure cohort exclusions and
	calculate case-mix-adjusted readmission rates. Assessing eligibility for
	the measure cohort and performing case-mix adjustment requires
	information on admission dates, end-of-service dates, and diagnosis
	codes. Identifying readmissions requires information on admission dates
	and end-of-service dates and the ability to link unique patient identifiers
	across inpatient claims records.
	13. The hospital is in a state not being analyzed.
	Rationale: A claims database used for readmission analysis may contain
	records for hospitals located in states that are not included in the
	database (because covered patients may sometimes be admitted to out-
	of-state hospitals). Records for these out-of-state hospital admissions are
	not excluded from the measure dataset because these records may meet
	criteria for being counted as readmissions as part of an in-state hospital's
	readmission rate. However, readmission rates are not calculated for out-

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Evelucion	Infants with a specified congenital anomaly are identified using the	of-state hospitals due to the lack of complete data for these hospitals.  14. Thirty days of follow-up data are not available for assessing readmissions.  Rationale: Identifying readmissions within 30 days requires a full 30 days of follow-up data.
Exclusion Details	Infants with a specified congenital anomaly are identified using the excel file in S.2b. Infants with a missing gestational age are excluded from the primary analysis, based on the gestational age field (best obstetrical estimate) from the birth certificate. Information about multiple imputation methods to allow for their inclusion are presented in the testing attachment, section 2b7. Infants who expired will be identified using the outcome of the neonatal intensive care hospitalization.  The smallest level of measurement (i.e. hospital, state, etc.) must have a minimum of 50 patients eligible for readmission in a single calendar year.	DATA PREPARATION AND APPLICATION OF EXCLUSIONS TO THE MEASURE COHORT (NUMERATOR AND DENOMINATOR) AND TO THE DENOMINATOR ONLY  Steps 1 through 8, below, describe the data preparation steps to implement and the exclusions to apply to the measure cohort (numerator and denominator) and to the denominator only before fitting the pediatric all-condition readmission model to inpatient claims data. STEP 1: IDENTIFY HOSPITALS ELIGIBLE FOR INCLUSION IN THE MEASURE This measure focuses on calculating pediatric readmission rates for general acute care hospitalizations. Criteria for retaining only hospitals identified as general acute care facilities are specified below. Exclusions at the Hospital Level:  • Drop records for specialty and non-acute care hospitals: For the list of American Hospital Association (AHA) hospital codes and Centers for Medicare & Medicaid Services (CMS) taxonomy codes for general acute care hospitals eligible for inclusion in the measure, see the Data Dictionary submitted in Section S.2b. Drop records for a hospital if the records contain only an AHA code or only a CMS code and the code is NOT for a general acute care hospital. If a hospital's records include both an AHA and a CMS code, drop the records for the hospital if either code is NOT for a general acute care hospital.  • Drop records for which hospital type is missing.  STEP 2: IDENTIFY HOSPITALS FOR WHICH READMISSION RATES SHOULD NOT BE CALCULATED

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	Hospitals with very incomplete data may lack adequate information to
	calculate accurate readmission rates. Readmission rates should therefore
	not be evaluated for these hospitals (i.e., their admissions should not be
	included in the measure as index admissions). To provide an accurate
	assessment based on the full dataset, data completeness at the hospital
	level should be assessed before excluding individual records for data
	quality or clinical criteria. Criteria for identifying hospitals for which
	readmission rates should not be calculated are listed below.
	Exclusions at the Hospital Level for Calculating Readmission Rates:
	Hospitals with less than 80% of records with complete unique
	patient identifier, admission date, and end-of-service date
	Hospitals with less than 80% of records with complete primary
	ICD-9 or principal ICD-10 diagnosis code
	Out-of-state hospitals
	Create a dichotomous variable named "hosp_noindex," coded 1 for
	hospitals meeting the above exclusion criteria (this variable will be used
	to exclude these hospitals' admissions from being evaluated as index
	admissions) and 0 for all other hospitals. Although readmission rates
	should not be calculated for these hospitals, these hospitals' records
	should remain in the dataset so that their admissions can be evaluated
	as potential readmissions for other hospitals.
	STEP 3: EXCLUDE PATIENTS WHO HAVE MISSING OR INVALID DATA FOR
	ANALYZING READMISSIONS
	Exclusions at the Patient Level:
	Drop all records for a patient if ANY record is missing patient
	identifier, hospital identifier, admission date, end-of-service date, or
	disposition status.
	Drop all records for a patient if date of birth is missing in ALL
	records.

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	Drop all records for a patient if date of birth is not consistent
	across records.
	Drop all records for a patient if ANY record has an end-of-service
	date prior to the admission date.
	Drop all records for a patient if ANY record has an admission
	date or end-of-service date prior to the date of birth.
	Drop all records for a patient if ANY record uses codes other than
	ICD-9 or ICD-10 codes for the primary procedure.
	Drop all records for a patient if gender is missing in ALL records.
	Drop all records for a patient if gender is not consistent across
	records.
	STEP 4: SPECIFY VARIABLES DEFINED AT THE RECORD LEVEL
	The variables listed in the Data Dictionary provided in Section S.2b are
	used to construct the measure cohort and/or to calculate readmission
	rates. These variables must be named and coded as specified in the Data
	Dictionary and should be created prior to identifying episodes of care
	and applying further exclusions to the data.
	STEP 5: DEFINE EPISODES OF CARE
	Data for a single period of inpatient care may be contained in more than
	1 claims record. It therefore may be necessary to collapse instances of
	multiple claims for the same hospitalization into a single episode of care
	prior to applying some exclusion criteria and evaluating readmissions.
	This allows all data relevant to a given hospitalization to be appropriately
	evaluated for measure cohort exclusion. The process for defining
	episodes of care is detailed below.
	1. IDENTIFY TRUE DUPLICATES AND DROP ALL BUT 1.
	True duplicates are records that have identical values for all key
	variables needed to assess cohort eligibility and calculate case-mix-
	adjusted readmission rates, where these key variables include all

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	variables listed in the Data Dictionary (provided in Section S.2b) except
	hasprimary. Combine true duplicates, using the MAXIMUM value of hasprimary.
	2. IDENTIFY AND COMBINE MULTIPLE VALID RECORDS FROM THE
	SAME HOSPITAL FOR THE SAME HOSPITALIZATION.
	Sort records by the following variables, in the specified order:    Sort records by the following variables, in the specified order:
	<ul> <li>patientid, hospitalid, admit_dt, end_service_dt, and disp_status.</li> <li>Define records to be part of the same hospitalization at the same</li> </ul>
	hospital if (a) patientid and hospitalid are equal to those in the previous
	record and (b) admission dates and end-of-service dates indicate
	consecutive time periods or nesting of 1 time period within another in
	that any of the following is true:
	o admission date is before the previous record's end-of-service
	date
	o admission date is equal to the previous record's end-of-service
	date AND the previous record's disposition status is other (i.e., disp_status = 0) or transfer to an acute care hospital (i.e., disp_status = 2)
	o admission date is 1 day after the previous record's end-of-service
	date AND the previous record's disposition status is other (i.e.,
	disp_status = 0) or transfer to an acute care hospital (i.e., disp_status = 2)
	o admission and end-of-service dates are both the same as those
	of the previous record, and admission date is equal to end-of-service
	date (i.e., the records are for a same-day discharge)
	If the above criteria for multiple valid records from the same hospital for
	the same hospitalization are met, combine all of the records. Retain the variables patientid, dob, hospitalid, male, and hosp_noindex, which will
	be the same across records by this step. Use the MINIMUM value for
	admit_dt. Use the MAXIMUM value for end_service_dt, hasprimary, cci1-

the value of payer analy If multiple inconsister disp_status end_service point for the the maxim variables a	cci12-cci18, planned, chemo, mh, obstetric, and newborn. Use of disp_status and ins_end (this variable is only used in single-yses) from the record with the maximum end-of-service date. records have the same maximum end-of-service date but not values for disp_status, use the MAXIMUM value of s within those records. Using the maximum value for the ce_dt captures the discharge date that serves as the starting the 30-day follow-up period for evaluating readmissions. Using the um value for chronic condition indicator and clinical exclusion cross records captures the presence of a chronic condition or clusion for the entire episode of care. For example, if 1 record
contains a diagnosis vepisode of 3. IDI MULTIPLE TRANSFERS  So patientid, a  De equal to padisposition 2), and (c) record's er If the above of the recobe the same admit_dt. I	primary ICD-9 or principal ICD-10 mental health diagnosis, this will be applied to the entire episode of care, and the entire care will be excluded.  ENTIFY AND COMBINE MULTIPLE VALID RECORDS FROM HOSPITALS FOR HOSPITALIZATIONS THAT INCLUDED

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	the value of hospitalid, disp_status, ins_end, and hosp_noindex from the
	last record.
	4. IDENTIFY AND EXCLUDE INVALID EPISODES OF CARE
	There may be episodes of care that are temporally overlapping (i.e., in
	which it appears that a patient was in 2 different hospitals at the same
	time). These episodes should be dropped.
	Drop all episodes of care that share the same patient identifier,
	admission date, and end-of-service date but have different hospital
	identifiers.
	For each patient identifier, drop all temporally adjacent episodes
	of care if there are overlapping dates (i.e., admission date is before the
	end-of-service date for the preceding episode of care) but different
	hospital identifiers.
	STEP 6: SPECIFY VARIABLES DEFINED AT THE EPISODE-OF-CARE LEVEL
	Because multiple records may be combined to create an episode of care,
	some variables used for measure cohort exclusions and readmission
	analysis should be defined only after defining valid episodes of care. This
	sequencing assures that the variable values accurately represent
	information for the entire hospitalization, rather than capturing only a
	subset of information for the hospitalization. These variables should be
	created as specified in the Data Dictionary provided in Section S.2b, prior
	to applying further exclusion criteria to the data.
	STEP 7: DEFINE EPISODES OF CARE ELIGIBLE FOR INCLUSION IN MEASURE
	COHORT
	The exclusions listed below are applied only after defining episodes of
	care (in Step 5) and defining variables at the episode-of-care level (in
	Step 6).
	Exclusions at the Patient Level Based on Data Completeness Criteria:
	Drop all episodes of care for a patient if the primary ICD-9 or

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	principal ICD-10 diagnosis code is missing (i.e., hasprimary = 0) for ANY
	episode of care for that patient.
	Exclusions at the Episode-of-Care Level Based on Data Quality Criteria:
	Drop episodes of care with admission dates that occur after a
	discharge status of death during a prior episode of care.
	Exclusions at the Episode-of-Care Level Based on Clinical Criteria:
	Drop episodes of care for patients greater than 18 years, 29 days
	old at the time of admission.
	Drop episodes of care for birth of healthy newborns (i.e.,
	newborn = 1).
	Drop episodes of care with a primary ICD-9 or principal ICD-10
	non-delivery obstetric diagnosis or any labor and delivery diagnosis or
	procedure (i.e., obstetric = 1).
	Drop episodes of care with a primary ICD-9 or principal ICD-10
	mental health diagnosis (i.e., mh = 1).
	STEP 8: DEFINE INDEX ADMISSIONS AND READMISSIONS
	A clean dataset containing only eligible admissions must be prepared
	before defining index admissions and readmissions. This dataset should
	consist of all admissions that are eligible for inclusion in the measure
	cohort based on the criteria detailed in data preparation steps 1 through
	7, above.
	Exclusions at the Episode-of-Care Level for Defining Index Admissions:
	Episodes of care for patients 18 years, 0 days old or greater at
	the time of discharge
	Episodes of care with a discharge disposition of death
	Episodes of care with a discharge disposition of leaving the
	hospital against medical advice
	Episodes of care for which 30 days of follow-up data are
	unavailable, either (a) because the dataset's time range for claims does

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		not include the full 30 days, or (b) because, for single-payer analyses, the patient was not enrolled with the payer for the full 30 days (i.e., the difference between ins_end and end_service_dt is less than 30 days). The above exclusions are applied without deleting the records from the dataset as these episodes of care may still meet criteria for readmissions. Exclusions at the Hospital Level for Defining Index Admissions:  • Hospitals with less than 80% of records with complete unique patient identifier, admission date, and end-of-service date  • Hospitals with less than 80% of records with complete primary ICD-9 or principal ICD-10 diagnosis code  • Out-of-state hospitals  Hospitals meeting the above exclusion criteria were identified in Step 2, above. The dichotomous variable hosp_noindex was created in Step 2 and coded 1 for hospitals meeting the above criteria and 0 for all other hospitals. Episodes of care for hospitals with hosp_noindex = 1 are therefore excluded from index admissions.  Although these hospitals' episodes of care should not be evaluated as index admissions (i.e., readmission rates should not be calculated for these hospitals), their episodes of care should remain in the dataset so
Risk Adjustment	Statistical risk model The optimal model uses logistic regression is used to adjust for the risk factor variables, which are: adjusted for gestational age, race, gender, education, insurance status, and complications (bronchopulmonary dysplasia (BPD), necrotizing enterocolitis Provided in response box S.15a	they can be evaluated as potential readmissions for other hospitals.  Statistical risk model  CASE-MIX ADJUSTMENT MODEL  The case-mix adjustment model consists of a 2-level logistic regression model with fixed effect variables for patient case-mix at the first level and random intercepts for hospitals at the second level.  The model estimates 3 types of parameters. First, the coefficients of patient demographic and clinical characteristics represent the influence of these characteristics on predicted probabilities of readmission for an individual patient. Second, hospital-level random intercept estimates

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		(evaluated for each hospital) represent the greater or lesser adjusted probability of readmission, not explained by patient-level fixed effects, for patients discharged from each hospital. Finally, variance estimates of the hospital random effects summarize the amount of variation among the intercepts for different hospitals and hence summarize the amount of variation in adjusted readmission rates across hospitals, at least some of which may be due to variation in health system quality. See the Data Dictionary submitted in Section S.2b.  The following case-mix variables, defined from the index admission, are included in the model:  Age group  Gender  Presence of chronic conditions in each of 17 body systems (organ systems, disease categories, or other categories)  Number of body systems affected by chronic conditions After the case-mix-adjusted coefficients and hospital-level random intercept for each record are calculated, the hospital-specific case-mix-adjusted readmission rate is estimated through direct standardization using a case-mix representative of all hospitals in the entire dataset. The resulting estimates represent the readmission rate that each hospital would have if it served the same representative case-mix and are therefore conducive to comparisons among hospitals.  DIRECT STANDARDIZATION  Hospital populations in the dataset have differing case-mix compositions, making meaningful interpretations of comparisons of readmission rates across hospitals challenging. The hospital estimate from the fitted equation above is an estimate of the random effects intercept which is not a readily interpretable quantity. We therefore use direct standardization to generate readmission rates that have a meaningful

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	interpretation across hospitals. The interpretation that can be posited
	from this methodology is that the predicted readmission rate estimated
	for each hospital represents the readmission rate it would have if the
	hospital treated a patient cohort with the case-mix composition of all
	eligible index admissions within the entire dataset.
	We first fit a 2-level hierarchical logistic regression model to the
	observed data to obtain hospital-specific random intercepts that are
	adjusted for each hospital's case-mix. In order to implement direct
	standardization, we apply the estimates from the model to a
	hypothetical dataset in which (a) all admissions are re-coded as if they
	are from the hospital for which a readmission rate is being estimated and
	(b) the readmission outcome has been set to missing. Otherwise, the
	dataset is identical to the actual observed data from all hospitals in the
	cohort. This methodology uses the hospital's own random intercept,
	which is case-mix adjusted by its own specific index admission
	population, to determine the probability that a record in the dataset will
	generate a readmission.
	Each hospital's predicted probabilities for all records are summed by
	hospital and divided by the total number of index admissions in the
	dataset to produce the hospital-specific standardized readmission rate.
	The upper confidence bound for this estimate is calculated as the mean
	of the upper confidence bound for each index admission's probability of
	leading to a readmission. The corresponding procedure is followed to
	estimate the lower confidence bound.
	Finally, the point estimate and bound values are multiplied by a factor
	that corrects for estimation error produced by transformations used
	during estimation. The bias correction factor is a constant value specified
	as the observed number of readmissions across all hospitals in the
	dataset divided by the predicted number of readmissions across all

2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
	hospitals in the dataset. After calculating the point estimates and
	confidence intervals of hospital-specific readmission rates for each
	hospital using this methodology, hospitals are identified as outliers if the
	confidence bounds around their predicted readmission rates do not
	overlap with the overall observed readmission rate across the entire
	dataset.
	ESTIMATION OF NATIONALLY COMPARABLE HOSPITAL- OR STATE-LEVEL
	READMISSION RATES
	There are several options for calculating rates that could be compared
	nationally. CMS could analyze Medicaid claims from multiple states. A
	private payer with data from multiple states could compare hospitals
	from across state lines. Multiple states with all-payer databases could
	combine them to enable cross-state comparisons. Individual states could
	calculate nationally comparable rates using a method we have
	developed by which readmission rates can be estimated for Medicaid-
	insured patients and standardized using a MAX reference dataset. Please
	see the Detailed Measure Specifications (provided in the Appendix) for
	instructions on implementing this method. Readmission rates are
	standardized using a dataset consisting of MAX claims for 26 states
	(Alabama, Arizona, Connecticut, Idaho, Indiana, Iowa, Kansas, Kentucky,
	Louisiana, Minnesota, Mississippi, Missouri, Montana, New Jersey, New
	Mexico, New York, North Carolina, North Dakota, Oklahoma, Oregon,
	South Dakota, Texas, Vermont, Virginia, Wisconsin, and Wyoming). The
	states, which are diverse in size and represent each geographic region
	(Northeast, Midwest, South, West), were chosen based on quality and
	completeness of their data for readmission analyses; to our knowledge,
	the combined data for these states comprise the most nationally
	representative dataset available to standardize readmission rates for
	Medicaid-insured children.

	2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
		Available in attached Excel or csv file at S.2b
Stratification	N/A	Not applicable.
Type Score	Rate/proportion better quality = lower score	Rate/proportion better quality = lower score
Algorithm	First, patients are identified as having a gestational age of 23-34	PREPARATION OF DATA AND IDENTIFICATION OF MEASURE COHORT
	weeks using the best obstetrical estimate of gestational age	Identify Hospitals Eligible for Inclusion in the Measure
	included in the birth certificate data. Variables for adjustment are	1. Starting with the complete set of claims from the time period being
	then determined: race, gender, education, insurance status, and	analyzed,
	complications (bronchopulmonary dysplasia (BPD), necrotizing	exclude hospitalizations that occurred at specialty or non-acute care
	enterocolitis (NEC), retinopathy of prematurity (ROP), and	hospitals or at hospitals for which hospital type is missing.
	intraventricular hemorrhage (IVH)). For these patients,	Identify Hospitals for which Readmission Rates Should Not Be Calculated
	readmissions are identified within the specified time period of 30	2. Identify and flag out-of-state hospitals and hospitals with incomplete
	days. We next calculate the observed number of readmissions	data for key variables for more than 20% of records.
	divided by the expected number of readmissions at the given level	Exclude Patients Who Have Missing or Invalid Data for Analyzing
	of the health care provider (hospital, outpatient facility, state)	Readmissions
	where the expected number of readmissions is based on the risk	3. Exclude patients whose records use procedure codes other than ICD-9
	adjustment model using the above variables. The final ratio,	or ICD-10 codes or have missing or invalid data for 1 or more of the
	(observed number of readmissions)/(expected number of	following variables: patient identifier, hospital identifier, admission date,
	readmissions), is then multiplied by the mean percentage of	end-of-service date, disposition status, date of birth, and gender.
	admissions in the cohort to calculate a risk-adjusted readmission	Specify Variables Defined at the Record Level
	rate.	4. Define variables for measure cohort exclusions and readmission
	A similar method is performed if complications are excluded from	analysis that should be created at the record level.
	the risk adjustment model. However, as we note, in testing of the	Define Episodes of Care
	various risk adjustment models the risk-adjusted readmission rates	5. For hospitalizations with data contained in more than 1 claim,
	for each time period changed minimally when these complication	combine the multiple claims into a single record for each hospitalization.
	measures were included or excluded from the model.	Specify Variables Defined at the Episode of Care Level
	The smallest level of measurement (i.e. hospital, state, etc.) must	6. Define variables for measure cohort exclusions and readmission
	have a minimum of 50 patients eligible for readmission in a single	analysis that should be created at the episode of care level.
	calendar year. No diagram provided	Define Episodes of Care Eligible for Inclusion in Measure Cohort
		7. Exclude hospitalizations with a missing primary ICD-9 or principal ICD-

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	10 diagnosis code.
	8. Exclude hospitalizations with an admission date occurring after a
	previous hospitalization with a disposition status of death.
	9. Exclude hospitalizations for patients older than 18 years, 29 days at
	the time of admission.
	10. Exclude hospitalizations for obstetric conditions, mental health
	conditions, and birth of healthy newborns.
	DEFINE INDEX HOSPITALIZATIONS
	11. Exclude hospitalizations for patients 18 years, 0 days old or older at the time of discharge.
	12. Exclude hospitalizations with a discharge disposition of death.
	13. Exclude hospitalizations with a discharge disposition of leaving
	against medical advice.
	14. Exclude hospitalizations for which 30 days of follow-up data are not
	available for assessing readmissions.
	15. Exclude hospitalizations that occurred at hospitals that (a) have less
	than 80% of records with complete patient identifier, admission date,
	and end-of-service date; (b) have less than 80% of records with complete
	primary ICD-9 or principal ICD-10 diagnosis codes; or (c) are located in a
	state not being analyzed.
	DEFINE READMISSIONS
	16. Identify index hospitalizations followed by one or more readmissions
	within 30 days.
	17. When identifying readmissions, exclude hospitalizations with (a) a
	primary ICD-9 or principal ICD-10 procedure code for a planned
	procedure or (b) a primary ICD-9 or principal ICD-10 diagnosis code or
	procedure code for chemotherapy.
	CASE-MIX ADJUSTMENT MODEL FITTING AND DIRECT STANDARDIZATION
	18. Fit the case-mix adjustment model to the prepared dataset to

2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
2893: Neonatal Intensive Care All-Condition Readmissions	estimate coefficients for the case-mix variables (age, gender, presence of chronic conditions in each of 17 body systems, and number of body systems affected by chronic conditions) and a hospital random intercept for each hospital.  19. Perform direct standardization by fitting the model again for each hospital. Use the hospital's random intercept, adjusted for its own case-mix, from Step 18, but instead of using the hospital's own case-mix data, use a hypothetical dataset in which (a) all admissions are re-coded as if they are from the hospital for which a readmission rate is being estimated and (b) the readmission outcome has been set to missing. Each hospital's predicted probabilities for all records are summed by hospital and divided by the total number of index admissions in the dataset to produce the hospital-specific standardized readmission rate.  20. The upper confidence bound for this estimate is calculated as the mean of the upper confidence bound for each index admission's probability of leading to a readmission. The corresponding procedure is followed to estimate the lower confidence bound.  21. Finally, the point estimate and bound values are multiplied by a factor that corrects for estimation error produced by transformations used during estimation. The bias correction factor is a constant value specified as the observed number of readmissions across all hospitals in the dataset.  22. The resulting hospital-specific standardized readmission rate can be
	interpreted as the readmission rate the hospital would have if it treated
	a patient cohort with the case-mix composition of all eligible index admissions within the entire dataset.
	Detailed Methods for Implementing Direct Standardization in SAS
	One method to implement direct standardization in SAS involves

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2893: Neonatal Intensive Care All-Condition Readmissions	obtaining the predicted values of every patient in the dataset in each hospital using the steps listed below. This is the method used in the SAS program we have prepared for the measure.  1. For each hospital being standardized, create a duplicate copy of the original dataset. The duplicate dataset should contain exactly the same variables and records as in the original dataset for all hospitals.  2. Set the outcome (readmission) in the duplicate dataset to missing. This prevents these duplicate records from being used in model estimation.  3. For ALL records in the duplicate dataset, set the hospital identifier to the hospital identifier of the hospital being standardized. Add a variable to the dataset that indicates that these records contain hypothetical data.  4. Concatenate the duplicate datasets to the original dataset. If the concatenated dataset is too large to handle, the same procedure may be conducted for subgroups of hospitals, or for 1 hospital at a time, and the results combined afterward.  5. Fit the case-mix adjustment model to the dataset created in the previous step. In SAS, the model will be fitted only on the original data since the outcome is missing for the duplicate data. This process will produce a case-mix-adjusted random intercept for each hospital. However, the procedure will also produce predicted probabilities for both original and duplicate records (SAS calculates predicted
	probabilities for any record in which the predictors are not missing,
	regardless of whether the outcome is missing).  6. Calculate the mean predicted probability and lower and upper bounds
	for only the duplicate records (those flagged as containing hypothetical
	data) in order to obtain the predicted readmission rate for the hospital
	being standardized. This rate represents the readmission rate for this
	hospital if it were to treat the entire dataset's population mix. No

	2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
		diagram provided
Submission	5.1 Identified measures: 2393 : Pediatric All-Condition	5.1 Identified measures: 0695 : Hospital 30-Day Risk-Standardized
items	Readmission Measure	Readmission Rates following Percutaneous Coronary Intervention (PCI)
		0329 : Risk-Adjusted 30-Day All-Cause Readmission Rate
	5a.1 Are specs completely harmonized? No	0330 : Hospital 30-day, all-cause, risk-standardized readmission rate
		(RSRR) following heart failure (HF) hospitalization
	5a.2 If not completely harmonized, identify difference, rationale,	0505: Hospital 30-day all-cause risk-standardized readmission rate
	impact: This measure is specific to the Neonatal population.	(RSRR) following acute myocardial infarction (AMI) hospitalization.
		1551: Hospital-level 30-day all-cause risk-standardized readmission rate
	5b.1 If competing, why superior or rationale for additive value:	(RSRR) following elective primary total hip arthroplasty (THA) and total
	This measure provides the additive value of being specific to the	knee arthroplasty (TKA)
	unique patient population seen in the NICU.	1768 : Plan All-Cause Readmissions (PCR)
		1891: Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate
		(RSRR) following Chronic Obstructive Pulmonary Disease (COPD)
		Hospitalization
		5a.1 Are specs completely harmonized? No
		5a.2 If not completely harmonized, identify difference, rationale, impact:
		Our candidate measure fills a gap in pediatric quality measurement by
		addressing the current dearth of measures that assess inpatient care.
		The measure also addresses the need for readmission measures
		developed for use in children. We have harmonized our measure with
		the CMS Hospital-Wide All-Cause Unplanned Readmission Measure (NQF
		#1789) for adults. Like the adult measure, our measure calculates
		unplanned readmissions following hospitalization for almost all
		conditions, where a readmission is defined as the first unplanned
		admission to any acute care hospital within 30 days of discharge from a
		prior hospitalization at an acute care hospital. However, the adult

2893: Neonatal Intensive Care All-Condition Readmissions	2393: Pediatric All-Condition Readmission Measure
	measure allows each hospitalization to potentially count as both an index admission and a readmission and permits multiple index admissions per patient within a 30-day period. For our measure, in contrast, additional admissions within 30 days from discharge from an index admission are not counted as index admissions. An admission more than 30 days from discharge from an index admission is counted as a new index admission. We chose this approach to increase the independence of observations and thus avoid having readmission rates dominated by the relatively few children with multiple readmissions within short time periods. Our measure covers the pediatric population, with an age eligibility criterion (less than 18 years old) that is complementary to that of the adult measure (18 years or older). Like the adult measure, our measure also uses a statistical model to case-mix adjust readmission rates, but our model was specifically developed for pediatric patients. Our measure also uses an algorithm for identifying hospitalizations for planned procedures and excluding them from readmissions. However, we developed the algorithm specifically for pediatric patients through a process in which pediatric expert clinicians reviewed ICD-9-CM procedure codes and indicated whether each procedure is typically planned in advance for children. We do not anticipate that differences between our measure and the adult measure would affect the interpretability or data collection burden of our measure.
	5b.1 If competing, why superior or rationale for additive value: Not applicable. This measure does not conceptually address the same focus and target population as NQF-endorsed measure(s).

## **Appendix G: Pre-Evaluation Comments**

Comments received as of April, 5 2016.

Topic	Commenter	Comment
0033: Chlamydia Screening in Women (CHL)	Submitted by Dr. Nat James	This measure permits an exclusion if an x-ray procedure is performed within 7 days of a pregnancy test. The allowed x-ray procedures are defined in CMS eCQM 153 as a test contained in the grouper: Diagnostic Study, Order: X-Ray Study (all inclusive)" using "X-Ray Study (all inclusive) Grouping Value Set (2.16.840.1.113883.3.464.1003.198.12.1034). This is a LOINC code grouper. Our EHR (Epic) and the procedure database (AMA) only link CPT codes to our x-ray procedures, not LOINC. Is there a procedure grouper based on CPT codes instead of LOINC that can be used for this measure? If not, what are recommended next steps for setting up this measure for MU reporting?
0033: Chlamydia Screening in Women (CHL)	Submitted by Dr. Maria Jorina, PhD	The measure seems very reasonable. The denominator exclusions could be defined to account for the patients who may be taking birth control pills for health-related reasons but who are not sexually active. Please at least remove all patients with pregnancy tests due to surgery within a week as well as those receiving X-rays and Accutane. Consider removing some menstrual diagnoses such as PCOS, ovarian failure, amenorrhea, etc. from the denominator. A number of these need hormonal treatment and are not suggestive of sexual activity. We also recommend adding screenings at behavioral health clinics in order to capture populations at the highest risk for chlamydia. (comment submitted by Boston Children's Hospital)
0471: PC-02 Cesarean Birth	Submitted by Gustavo San Roman, MD, FACOG	I have concerns about measure #0471 as well as the recent actions of the measure steward. My concerns stem from the fact that the Joint Commission (JC) has failed to disclose that they are aware of a fatal error in measure #0471: PC-02 Cesarean Birth. I have been attempting to inform the JC since April 2010 that the direct standardization age risk adjustment used in measure PC-02 contains a fatal flaw [1]. This error was not immediately obvious to others including the authors, the editors, the JC and the National Quality Forum (NQF). I was finally able to get the JC to understand the fatal flaw in July 2015 which they acknowledged in an email this past September. They informed me that instead of recalling the flawed measure that they would just be dropping the risk adjustment.  I was horrified by their decision since dropping the risk adjustment

Topic	Commenter	Comment
		from measure PC-02 creates a new and significantly more flawed cesarean birth measure which has never been tested, validated or endorsed. The JC's website indeed confirms that they have dropped the risk adjustment from measure PC-02 v2016A [2]. Surprisingly, their website clearly indicates that this new cesarean birth measure is "NQF-ENDORSED". The actions of the JC are especially concerning because these actions make it very confusing as to which cesarean birth measure was vetted by the NQF and recently adopted by The Core Quality Measure Collaborative.  I understand the significant problem that I have created by exposing a fatal flaw in the widely distributed measure #0471. However, the decision by the JC to conceal the flaw from the NQF will only make the problem worse. The longer it takes to recall a fatally flawed measure the more significant the problem will become.  It was clear to me six years ago that the fatal flaw in PC-02 would eventually require a recall of the measure but unfortunately my concerns were ignored by the JC. Ignoring my concerns in 2010 has resulted in six wasted years in the effort to accurately measure cesarean birth utilization. Therefore, it would be extremely irresponsible of me if I didn't alert everyone involved of the current actions of the JC before they waste another six years and potentially adversely affect not only the millions of women who are giving birth each year but also the hard working healthcare personnel that care for them.  I understand the extremely serious nature of my concerns and stand ready to provide any and all evidence required in support of my concerns. My motives are clear and my conviction is unwavering. Women who give birth deserve better. – Gustavo San Román, MD  References:  1. https://www.birthrisk.com/Public/FatalFlaw.pdf  2. https://manual.jointcommission.org/releases/TJC2016A/MIF0167.html
0480: PC-05 Exclusive Breast Milk Feeding	Submitted by Alison Mann Stuebe, MD	I am writing to express my strong support for continued endorsement of PC-05, Exclusive Breast Milk Feeding. Seminal research from the California Maternity Care Quality Collaborative demonstrated substantial variation in supplementation of breastfed infants among maternity centers. Moreover, national data confirm that there is wide variation in the use of formula among breastfed infants in the first 2 days of life[1], ranging from 6.1% in Montana to 34.9% in New Jersey.

Topic	Commenter	Comment
		This variation among states suggests that overutilization of formula occurs in many maternity hospitals.  However, just as some infants require delivery via cesarean, some breastfeeding dyads require formula supplementation. It is therefore essential that implementation of PC05 occurs within a context that provides appropriate support for family-centered decision-making and transitions to outpatient support. The AAP recommends that all breastfeeding newborns be seen within 48 to 72h of discharge from the maternity center[2]. Because some families may initiate breastfeeding after leaving the hospital, it may be prudent to schedule all newborns for a 48 to 72h visit to establish care with a pediatric provider. It may be useful to consider a quality measure for the proportion of infants seen by a health professional, either in the office or for a home visit, within 48 to 72h of discharge.  Of note, the Baby Friendly Hospital Initiative includes a metric for exclusive breast milk feeding as one of its metrics for certification. Differences exist between PC-05 and the BFHI measure, increasing reporting burden for maternity centers. It would be helpful if BFHI and NQF could work together to develop a common metric for measuring exclusive breast milk feeding.  Evidence continues to accrue that there is no replacement for mother's milk[3]. We can enable families to achieve optimal infant feeding by reducing iatrogenic formula supplementation during the maternity stay, and by ensuring careful follow-up for all families in the early days of life.  1. Centers for Disease Control and Prevention. 2012: Percent of breastfed infants who were supplemented with infant formula within 2 days of life. 2015 [cited 2016 April 4]; Available from: https://nccd.cdc.gov/NPAO_DTM/IndicatorSummary.aspx?category=8 &indicator=41.  2. American Academy of Pediatrics, Breastfeeding and the use of human milk. Pediatrics, 2012. 129(3): p. e827-41.  3. Victora, C.G., et al., Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelon
2830: PC-05 Exclusive Breast Milk Feeding	Submitted by Alison Mann Stuebe, MD	I am writing to express my strong support for continued endorsement of PC-05, Exclusive Breast Milk Feeding. Seminal research from the California Maternity Care Quality Collaborative demonstrated substantial variation in supplementation of breastfed infants among maternity centers. Moreover, national data confirm that there is wide

Topic	Commenter	Comment
		variation in the use of formula among breastfed infants in the first 2 days of life[1], ranging from 6.1% in Montana to 34.9% in New Jersey. This variation among states suggests that overutilization of formula occurs in many maternity hospitals. However, just as some infants require delivery via cesarean, some breastfeeding dyads require formula supplementation. It is therefore essential that implementation of PC05 occurs within a context that provides appropriate support for family-centered decision-making and transitions to outpatient support. The AAP recommends that all breastfeeding newborns be seen within 48 to 72h of discharge from the maternity center[2]. Because some families may initiate breastfeeding after leaving the hospital, it may be prudent to schedule all newborns for a 48 to 72h visit to establish care with a pediatric provider. It may be useful to consider a quality measure for the proportion of infants seen by a health professional, either in the office or for a home visit, within 48 to 72h of discharge.  Of note, the Baby Friendly Hospital Initiative includes a metric for exclusive breast milk feeding as one of its metrics for certification. Differences exist between PC-05 and the BFHI measure, increasing reporting burden for maternity centers. It would be helpful if BFHI and NQF could work together to develop a common metric for measuring exclusive breast milk feeding.  Evidence continues to accrue that there is no replacement for mother's milk[3]. We can enable families to achieve optimal infant feeding by reducing iatrogenic formula supplementation during the maternity stay, and by ensuring careful follow-up for all families in the early days of life.  1. Centers for Disease Control and Prevention. 2012: Percent of breastfed infants who were supplemented with infant formula within 2 days of life. 2015 [cited 2016 April 4]; Available from: https://nccd.cdc.gov/NPAO_DTM/IndicatorSummary.aspx?category=8 &indicator=41.  2. American Academy of Pediatrics, Breastfeeding and the use of human mil
2902: Contraceptive	Raegan McDonald-	Planned Parenthood Federation of America, the nation's leading provider of women's reproductive healthcare, supports the
Care -	Mosley,	endorsement of the proposed measures. Contraception is an

Topic	Commenter	Comment
Postpartum	PPFA; Submitted by Jennifer Fuld	important and effective preventive service to reduce unintended pregnancy as well as improve birth spacing and family planning. PPFA provided de-identified data included in the application to demonstrate the reliability and validity of the measures as well the feasibility of using them for quality improvement. Currently, PPFA has already begun using a developmental version of these measures for quality improvement and looks forward to incorporate NQF endorsed measure into its portfolio of internal quality improvement work. National endorsement of these new performance measures on contraceptive care aligns with the April 2015 call by the Institute of Medicine for standardized metrics that include measuring contraceptive use to support reducing unintended pregnancy. Further, these will be the first nationally endorsed measures on contraceptive care, providing important tools to all providers who serve women of reproductive age.
2902: Contraceptive Care - Postpartum	Raegan McDonald- Mosley, PPFA; Submitted by Jennifer Fuld	Planned Parenthood Federation of America, the nation's leading provider of women's reproductive healthcare, supports the endorsement of the proposed measures. Contraception is an important and effective preventive service to reduce unintended pregnancy as well as improve birth spacing and family planning. National endorsement of these new performance measures on contraceptive care aligns with the April 2015 call by the Institute of Medicine for standardized metrics that include measuring contraceptive use to support reducing unintended pregnancy. Further, these will be the first nationally endorsed measures on contraceptive care, providing important tools to all providers who serve women of reproductive age.
2903: Contraceptive Care – Most & Moderately Effective Methods	Raegan McDonald- Mosley, PPFA; Submitted by Jennifer Fuld	Planned Parenthood Federation of America, the nation's leading provider of women's reproductive healthcare, supports the endorsement of the proposed measures. Contraception is an important and effective preventive service to reduce unintended pregnancy as well as improve birth spacing and family planning. PPFA provided de-identified data included in the application to demonstrate the reliability and validity of the measures as well the feasibility of using them for quality improvement. Currently, PPFA has already begun using a developmental version of these measures for quality improvement and looks forward to incorporate NQF endorsed measure into its portfolio of internal quality improvement work.  National endorsement of these new performance measures on

Topic	Commenter	Comment
		contraceptive care aligns with the April 2015 call by the Institute of Medicine for standardized metrics that include measuring contraceptive use to support reducing unintended pregnancy. Further, these will be the first nationally endorsed measures on contraceptive care, providing important tools to all providers who serve women of reproductive age.
2904: Contraceptive Care - Access to LARC	Raegan McDonald- Mosley, PPFA; Submitted by Jennifer Fuld	Planned Parenthood Federation of America, the nation's leading provider of women's reproductive healthcare, supports the endorsement of the proposed measures. Contraception is an important and effective preventive service to reduce unintended pregnancy as well as improve birth spacing and family planning. PPFA provided de-identified data included in the application to demonstrate the reliability and validity of the measures as well the feasibility of using them for quality improvement. Currently, PPFA has already begun using a developmental version of these measures for quality improvement and looks forward to incorporate NQF endorsed measure into its portfolio of internal quality improvement work. National endorsement of these new performance measures on contraceptive care aligns with the April 2015 call by the Institute of Medicine for standardized metrics that include measuring contraceptive use to support reducing unintended pregnancy. Further, these will be the first nationally endorsed measures on contraceptive care, providing important tools to all providers who serve women of reproductive age.

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