TO: Consensus Standards Approval Committee (CSAC)

FR: Reva Winkler and Suzanne Theberge

RE: Result of Voting for *Perinatal and Reproductive Healthcare Endorsement Maintenance*, 2011

DA: February 29, 2012

The CSAC will review the recommendations from the project, *Perinatal and Reproductive Healthcare Measures Endorsement Maintenance* during the March 7, 2012, in-person meeting. This memo includes the list of recommended measures, summary information about the project, and the Member voting results. The individual measure evaluation summary tables from the draft report are in the Appendix. The complete voting draft report and detailed measure information are available on the project webpage.

CSAC ACTION REQUIRED

Pursuant to the Consensus Development Process (CDP), the CSAC may consider approval of 14 candidate consensus standards:

PROCESS

This project followed the National Quality Forum's (NQF's) version 1.9 of the CDP. The Steering Committee met by conference call in November 2011 and then in person on November 29-30, 2011, to evaluate the measures. The Committee met via conference call on February 1, 2012, to address the comments received during the NQF member and public comment period.

Perinatal and Reproductive Healthcare Endorsement Maintenance 2011

	MAINTENANCE	NEW	TOTAL
Measures under consideration	29	3*	32
Withdrawn from consideration	11		
Recommended	12	2	14
Not recommended	6	1	7
Reasons for Not Recommending	Importance – 3	Importance - 1	
	Scientific Acceptability - 1		
	Overall - 1		
	Competing measure – 1		

^{*}Includes one composite measure with 10 components.

The measures were evaluated against the 2011 measure evaluation criteria. The Steering Committee encountered several overarching issues during its discussions and evaluations of the measures. These issues were factored into the Committee's ratings and recommendations for multiple measures and are explained below.

Long-term outcomes

Several measures assessed use of medications have been shown to benefit the infant (steroids, Group B Strep prophylaxis) or the mother (prophylactic antibiotics for Cesarean section) without evidence of adverse outcomes in the short term. However, emerging data raised concerns regarding potential changes in neonatal gut flora with C-section and antibiotics use. Data on long-term outcomes are not available; though, questions remain. The Committee suggested that population-health level measures that can follow children for many years may provide valuable information on potential long-term risks.

Population-level companion measures

The Committee noted that several measures have significant regional and cultural influences, such as breast feeding rates. Companion population-level measures may be useful in changing the attitudes and values of a community for overall improved care for women and infants.

Composite measures

The Committee generally supported the concept of composite measures for various aspects of prenatal, intra-partum, postpartum, and neonatal care. Although the Committee did not recommend the one safety-related composite measure submitted for consideration, they urged the developers to continue their work and offered suggestions to improve the measure. There were also multiple Committee suggestions for new composite measure development.

Use of vital statistics as a data source

Committee members noted that vital statistics data are underutilized for performance measurement. Many stakeholders such as states and Medicaid agencies do not have access to medical record data. Birth certificate data can provide additional clinical information not available in billing records. Measures that combine claims data and vital records data can be useful in the absence of chart data.

Related and competing measures

The Committee evaluated four similar measures for health-care acquired neonatal infections and agreed it would prefer to recommend a single measure rather than multiple, overlapping measures. While the measure specifications are similar, the data sources for three of the four measures, however, are very different. One is built from hospital billing data, a second is based

on voluntary individual hospital submissions to The Joint Commission, and two are developed from data submitted to the Vermont Oxford Network by its member hospitals. Thus the variation and benchmark information each could generate is potentially quite different, and the various current users understandably do not want to lose that capacity. However, states and private purchasers do not readily have access to the registry-base measures. In the absence of head-to-head comparisons of the measures the Committee cannot make any judgments as to differences in reliability and validity. Given these issues, the Committee recommended retaining three of the measures for the present time.

Harmonization

Harmonization was not a significant issue in this project. One new measure was submitted fully harmonized with an endorsed measure. It is anticipated that clinician-level measures in development will be harmonized with these facility-level measures.

COMMENTS ON THE DRAFT REPORT AND THEIR DISPOSITION

NQF received 149 comments from a variety of stakeholders, including 19 member organizations and 53 organizations and private citizens who did are not NQF members on measures both recommended and not recommended for endorsement as well as general comments on the draft report.

A table of complete comments submitted during the comment period, with the responses to each comment and the actions taken by the Steering Committee, is posted to the UPerinatal and Reproductive Health Endorsement Maintenance project page on the NQF website, along with the measure submission forms. The Steering Committee reviewed and responded to all comments received. They did not make any changes to the recommendations based on the comments received.

The Steering Committee reviewed the comments and focused its discussion on specific measures or topic areas with the most significant and recurring issues. Comments about specific measure specifications and rationale were forwarded to the measure developers, who were invited to respond.

GENERAL COMMENTS

Additional areas for measure development

Many comments were submitted suggesting areas for additional measure development or echoed the areas identified in the draft report.

ACTION TAKEN: After review by the Committee, the report was updated to include many of these suggestions.

Electronic Health Records

An EHR vendor submitted comments on all of the measures regarding the feasibility of each measure for a typical hospital or medical practice using an advanced EHR and the typical clinical users who will be recording the required information. They did not submit comments on the appropriateness, accuracy, or importance of the measures. They noted concerns or suggested minor modifications to the specifications for the following measures to improve the usability in EHRs.

ACTION TAKEN: Currently, none of the measures under consideration are specified for use in EHRs; thus, the issues raised have been provided to the developers for their consideration as they move toward an electronic environment.

Level of analysis

Several commenters requested additional level of analysis for three measures:

- 0469: PC-01 Elective Delivery (requesting clinician, clinician group, ACO, health plan)
 - o Currently facility and population (national) level
- 0470: Incidence of Episiotomy (requesting clinician, clinician group, ACO, health plan)
 - o Currently facility level
- 0471: PC-02 Cesarean Section (requesting clinician, clinician group, ACO, health plan)
 - o Currently facility and population (national) level

ACTION TAKEN: The Committee noted that it is difficult to "just bring measures down to the clinician level" and that methodologic challenges (small sample size and attribution) result in unstable results at the clinician level. These measures would need testing at the clinician-level prior to specifying that level of analysis. The developers have responded that clinician-level measures are not the focus of their measure development program.

Mandatory hospital reporting

Several comments noted the low numbers of participants by hospitals for the Joint Commission (TJC) core set and urged mandatory reporting be required to provide stakeholders more information about the quality of maternity care.

ACTION TAKEN: Reporting on and implementation of measures are not within the purview of the NQF endorsement process. However, the NQF-convened National Priorities Partnership Maternity Action Team is seeking mandatory reporting as a priority

action for 2012. The Committee also noted that LeapFrog is also encouraging public reporting.

Target values

A commenter noted that it is hard to know how to interpret a hospital's episiotomy rates (#0470) or NTSV cesarean section rates (#0471). The interpretation of these measures and the manner in which they are used can greatly affect their validity for accountability and/or quality improvement purposes. For example, if a low risk woman arrives in labor with a herpetic lesion she should have a cesarean section. Regions with higher rates of babies with macrosomia might also have more cesarean sections. Additionally, "routine" episiotomies should be avoided, but clinically indicated cases (albeit not in large numbers) are necessary.

ACTION TAKEN: The Committee stated that "de-contextualized, arbitrary targets are problematic" and that target rates are very context-driven. Committee members agreed that current rates are too high in many institutions on these measures and that until more data is available to fully describe current performance and relationships to outcomes and identify what improvement is possible, specific targets are not feasible. They noted that trends, or comparisons with other institutions, are a more useful measurement than a specific target value. The Committee requested that the developers consider developing benchmarks based on data collected from using the measure, and presenting that when the measures undergo maintenance review.

MEASURE SPECIFIC COMMENTS

0480: Exclusive Breast Milk Feeding

Measure evaluation form

This measure received 18 comments. While ten commenters acknowledged the health benefits of breastfeeding, they were primarily concerned with "mandated breastfeeding" and suggested that it was a woman's right to choose whether or not to breastfeed, and the measure would prevent women who chose not to breastfeed from receiving proper education and information on alternatives. However, eight commenters supported the measure, stating that the health reasons for breastfeeding are well documented, that the measure would not mandate breastfeeding for all babies, and that performance for this measure is not expected to be at 100%.

ACTION TAKEN: The Committee underscored the significant health benefits for newborns (reduction in otitis media, respiratory tract infections, atopic dermatitis, gastroenteritis, type 2 diabetes, sudden infant death syndrome, and obesity) and mother (decreased risk for type 2 diabetes, ovarian cancer, and breast cancer) conferred by breastfeeding and support all efforts to optimize maternal education, encouragement, and

support to enable women to make the healthiest choices for herself and her child. The Committee agreed that improving support for mothers who wish to breastfeed does not equal removing a choice. The Committee acknowledged that the target for this measure is not 100% and that the potential unintended consequences of "inappropriate coercion" should be monitored.

The Committee noted that current performance is quite low at 40% with much room for improvement. Both the Committee and the developer agreed that the purpose of the measure is to eliminate impediments to breastfeeding. According to the CDC, (http://www.cdc.gov/breastfeeding/data/reportcard.htm) "less than 5% of U.S. infants are born in Baby-Friendly hospitals, a global designation that indicates best practices in maternity care to support breastfeeding mothers. The hospital period is critical for mothers and babies to learn to breastfeed, and hospitals need to do more to support them. Birth facility policies and practices significantly impact whether a woman chooses to start breastfeeding and how long she continues to breastfeed." The Committee recommends additional process measures to assist facilities in improving support for breastfeeding. The Committee agreed to maintain their recommendation of the measure.

Health care acquired infection measures

- 0304: Late sepsis or meningitis in Very Low Birth Weight (VLBW) neonates (riskadjusted) Measure evaluation form
- 0478: Neonatal Blood Stream Infection Rate (NQI #3) Measure evaluation form
- 1731: Health Care-Associated Bloodstream Infections in Newborns Measure evaluation form

Three commenters raised concerns about having three separate measures on hospital acquired/late onset infections and requested that the measures be harmonized. While some of the comments agreed that the measures use different reporting streams, they suggested having three separate measures would cause confusion. One commenter agreed that there was a need for three separate measures and supported all three. A commenter noted that measures 0478 and 1731 would identify infants with late-onset sepsis, and that the population of infants that develop late onset meningitis is unique and general measures would not be efficacious for this population. Additionally, all three measures received comments and questions on the specifications, which were sent to the developers.

ACTION TAKEN: The Committee agreed that measure 304 was a related HAI measure but is quite distinct in that it 1) focuses on a very-high risk population—VLBW infants with a infection rate of 15% (VLBW represents only 1.5% of all births); 2) the measure only applies to hospitals with NICUs (approximately 800-900 hospitals in the US); and 3)

uses clinical data for the Vermont Oxford Network registry that captures 80% of VLBW infants in the US.

Measure 1731 was created by TJC when it selected five NQF-endorsed measures, including measure 478, for its Perinatal Core Set. Measures 478 and 1731 are fully harmonized measures within the limits of their data sources and measure 1731 is also harmonized with the other four measures in TJC Perinatal Core Set (0469 Elective Delivery < 39 weeks; 0471 Cesarean section; 0476 Antenatal Steroids; and 0480 Exclusive Breast Milk Feeding) for use in TJC's performance measurement programs. Measures 478 and 1731 differ from related measure 304 in that they also capture larger babies who experience in-hospital death; operating room procedure; mechanical ventilation; or transfers in less than 2 days of age. Measure 478 is based on administrative data and is collected in the HCUP State Inpatient Databases that are widely used by states.

The Committee understood the concerns about multiple related measures, but in the absence of head-to-head comparisons of the measures the Committee could not make any judgments as to differences in reliability and validity. All three measures are widely used and each is useful to different user groups. After reviewing and discussing the comments, the Committee did not change its recommendation of all three measures.

0470: Incidence of Episiotomy

Measure evaluation form

A commenter suggested additional exclusions for shortening the second stage of labor; the developer responded that the suggested exclusions did not align with ACOG guidelines and that it would be too complicated to captured using current data collection methods. Two comments were submitted in support of this measure.

ACTION TAKEN: The developer responded that "the ACOG technical bulletin (number 71, 2006) states that "(e)ven the presumption that episiotomy shortens the second stage of labor has not been conclusively shown." Regardless, the goal of this measure is to reduce (not eliminate) the routine use of episiotomy at the facility level. We anticipate that there may be clinical scenarios wherein a provider may choose to perform an episiotomy. These indications and the one cited above are too complex to be captured using current methods of data capture and therefore cannot and should not be included in this measure." The Committee agreed with the developer response and did not change their recommendation.

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

Measure evaluation form

This measure received three supportive comments and one comment noting concern with the exclusion of parental refusals, and requested that refusals be measured separately as a component of the numerator, consistent with NQF-endorsed immunization measures for influenza and pneumonia.

ACTION TAKEN: The developer replied that the original proposal for this measure encouraged such an approach—intending parental/guardian exclusions to be an optional adjustment to the denominator. Data obtained during field testing of the measure indicated that hospitals were not yet fully able to compute the amount of vaccination refusals. As use of ICD-10 codes is adopted (effective October 1, 2013), training hospital staff to appropriately document vaccinations refusals will occur and the measure will become more accurate. The Committee noted that coding for parental refusals will be standardized with ICD-10 and that should be incorporated into the next annual update. The Committee did not change their recommendation.

0476: Appropriate Use of Antenatal Steroids

Measure evaluation form

A comment was submitted that supported the measure, but suggested that the specifications be altered to bring them in line with the new ACOG Committee Opinion (Feb 2011); the developer agreed that these specifications were being updated as of February 2012. A second comment requested clarification on the list of reasons for the exclusion criteria "documented reason for not administering antenatal steroid," noting that without a specified list, there will be inconsistency in measurement with facilities, who will provide their own coding reasons.

ACTION TAKEN: The Committee agreed with the updated specifications. The developer explained that the data analysis is done by trained abstractors who are able to assess whether or not the documented reasons meet the specifications. The Committee did not change their recommendation.

0477: Under 1500g infant Not Delivered at Appropriate Level of Care

Measure evaluation form

This measure received two comments requesting expansion of the exclusion criteria to include reasons outside of the health care system's control for failure to transport to a hospital with appropriate levels of care services (e.g., very late presentation in active labor, lack of safe transportation, distance to NICU in rural areas).

ACTION TAKEN: The developer noted that in their use of this measure, urban hospitals were less likely to perform well on this measure than rural ones and also noted that the performance on this measure is not intended to be zero. The measure data is collected from simple administrative data and does not require chart review. After review of the comments and developer response, the Committee did not change their recommendation on the measure.

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

Measure evaluation form

A commenter raised concerns noting that their internal data (submitted for publication) does not support the burden of reporting this measure. Another commenter requested clarification on the exclusion criteria, stating that the exclusions "Outborn infants admitted to the reporting hospital more than 28 days after birth" and "Outborn infants who have been home prior to admission" do not appear aligned. This comment has been sent to the developer for a response.

ACTION TAKEN: The Committee agreed the data mentioned by the commenter should be reviewed after it is published, and that it should be taken into consideration during annual updates or maintenance review. The Committee also noted that some high-performing hospitals may have very little room for improvement but the Vermont Oxford Network (VON) data indicates that more than 23% percent of infants at 29 weeks gestation are not screened before hospital discharge. The developer clarified the exclusions, explaining that they pertain to VON's data collection criteria. The Committee did not change their recommendation of the measure.

1746: Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)

Measure evaluation form

Commenters submitted questions on the details of the specifications, and on the ability of EHRs to manage the many different data elements required to calculate this measure. The comments were sent to the developer for a response.

ACTION TAKEN: The developer responded that they kept the scope of the measure confined to the essentials for delivering care, and that they expect data collection will be easier as electronic systems are standardized. After reviewing the developer's response, the Committee had no additional comments and did not change their recommendation.

MEASURES NOT RECOMMENDED

Three measures not recommended by the Committee received comments in support of the measures:

0479: Birth dose of hepatitis B vaccine and hepatitis B immune globulin for newborns of hepatitis B surface antigen (HBsAg) positive mothers

Measure evaluation form

The measure developer, supported by 31 comments from a range of stakeholders, requested reconsideration of measure 0479. Commenters raised concerns about the disparities in care for babies born to HBsAg positive mothers and the long-term implications of not measuring Hepatitis B immune globulin (HBIG) administration to prevent Hepatitis B infection (HBV). The Immunization Action Coalition submitted data noting that of the 24,000 infants born to mothers who are chronically infected, this measure could prevent an estimated 9,100 infants from developing chronic HBV, including preventing an estimated 2,300 from dying of liver failure or liver cancer as adults. Other commenters noted that the CDC estimates that 1,000 newborns a year are infected with the HBV. Multiple comments noted that this measure would help achieve one of the primary goals of the DHHS "Action Plan for the Prevention, Care and Treatment of Viral Hepatitis".

ACTION TAKEN: The Committee noted that this is a very regional issue, and with measure 0475: Hep B vaccine coverage among all live newborn infants prior to hospital or birthing facility discharge in place, the additional impact of this measure would be small and highly variable among states. This measure addresses only babies born to HBsAg positive mothers. In 2009 in California, the state with the largest number of maternal cases 2077 of 2138 infants, (97.1%) received the first dose of the hepatitis B vaccine and the HBIG within 24 hours of birth. The developer argued that since HBV is a preventable disease every effort should be made to reach 100% compliance. The Committee agreed with the importance of the issue but suggested that with a small gap in current performance a national quality measure may not be the right approach to capture the few babies that are being missed. The Committee pointed to CDC's funded state, local, and territorial Perinatal Hepatitis B Prevention Coordinators that focus on

preventing perinatal transmission of HBV. After reviewing the comments and listening to the measure developer, the Committee voted not to change their recommendation against endorsement of the measure.

0502: Pregnancy test for female abdominal pain patients

Measure evaluation form

The developer requested that the Committee review and reconsider its recommendation against this measure, as it passed all of the four NQF evaluation criteria.

ACTION TAKEN: The Committee pointed to the number of medium to low ratings on the sub-criteria for Importance and Scientific Acceptability. The Committee agreed to reevaluate the measure after review of the transcript of the original Steering Committee and workgroup discussions. On re-evaluation, the Committee again decided not to recommend the measure. Although the Committee determined the measure passed the Importance criteria by a small majority, members voiced concerns over lack of data on ectopic disease burden; little data on current performance and gap; and specifically, no data on how many ectopic pregnancies are identified by routine urine pregnancy testing in the ER and impact on outcomes. Committee members noted that the ratings on reliability and validity and feasibility again had substantial numbers of medium or low votes citing concerns with the conflicting information presented on reliability and validity, and burden of data collection particularly for the exclusions.

0747: Admission to Neonatal Intensive Care Unit at Term

Measure evaluation form

Two comments were submitted suggesting that this component of the composite Adverse Outcomes Index measure is an important measure and that it be endorsed on its own.. Supporters voiced concerns with potential overuse of NICU facilities and the need for a measure to monitor the quality and appropriateness of NICU admissions.

ACTION TAKEN: The developer is willing to support a stand-alone measure. The developer clarified that the measure captures only the highest NICU acuity, i.e., uniform billing code 174 Level IV, newborn intensive care. Committee members noted that staffing and utilization patterns for NICUs is highly variable and speculated that overuse might be more likely at lower levels of acuity, e.g., observation for possible sepsis or hypothermia or hypoglycemia. Committee members would want to review the literature and evidence for overutilization as part of the evaluation for a stand-alone measure.

Committee members asked how an NICU admission measure would relate to endorsed measure 0716 <u>Healthy Term Newborn</u> and noted that it would need to be harmonized if it was not directly competing. The Committee agreed the developer should pursue further development and testing, and bring the measure back to NQF for review in the future.

NQF MEMBER VOTING

The 15-day voting period for the Perinatal and Reproductive Healthcare Endorsement Maintenance 2011 project concluded on February 27, 2012. 26 member organizations voted; no votes were received from the Public/Community Health Agency or Supplier/Industry councils. All 14 measures were approved with total approval ranging from 96% to 100%.

One Consumer Council voter, Childbirth Connection, submitted a voting comment on a measure not recommended, consistent with their submitted comments during the review period. No other comments were submitted during voting.

Voting Comment: Childbirth Connection is disappointed that the Steering Committee did not also recommend endorsement of 0479 Birth dose of hepatitis B vaccine and hepatitis B immune globulin for newborns of hepatitis B surface antigen (HBsAg) positive mothers. The report states that disparity measures are a high priority, and this measure would favorably impact disparity populations. We found the many comments about preventable morbidity and mortality to be compelling. We noted that mechanisms for awareness (e.g., CDC programs) make a difference in care practices as, we believe, would a nationally endorsed performance measure. We disagree that this is a regional concern, as immigrants from endemic areas are widely distributed throughout the country. We expect that upcoming NQF measure endorsement projects with relevant themes will provide the developers with an opportunity to resubmit this measure, and we hope the measure will be well received.

Voting Results

Voting results for the 14 candidate consensus standards are provided below. (The full measure summary evaluation tables are in Appendix A.)

Measure #0304 Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (riskadjusted)

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%

Health Professional	4	0	0	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	26	0	0	26	100%
Percentage of councils approving (>50%)					100%
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

Measure #0469 PC-01 Elective Delivery

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	3	0	1	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	25	0	1	26	100%
Percentage of councils approving (>50%)					100%
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

Measure #0470 Incidence of Episiotomy

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	3	0	1	4	100%
Provider Organizations	3	1	0	4	75%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	24	1	1	26	96%
Percentage of councils approving (>50%)					100%
Average council percentage approval					96%

^{*}equation: Yes/ (Total - Abstain)

Measure #0471 PC-02 Cesarean Section

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	3	0	1	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	25	0	1	26	100%
Percentage of councils approving (>50%)					100%
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

Measure #0472 Appropriate Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision- Cesarean Section

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	4	0	0	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	26	0	0	26	100%
Percentage of councils approving (>50%)					100%
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

Measure #0473 Appropriate DVT Prophylaxis in Women Undergoing Cesarean Delivery

Measure #04/5 Appropriate DV 1 Frophyl	VVUII	nen Undergonig Cesarean Denvery			
Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	3	0	1	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	25	0	1	26	100%
Percentage of councils approving (>50%)					100%

Average council percentage approval 100%
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^{*}equation: Yes/ (Total - Abstain)

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

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	4	0	0	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	26	0	0	26	100%
Percentage of councils approving (>50%)					100%
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

Measure #0476 PC-03 Antenatal Steroids

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	3	0	1	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	25	0	1	26	100%
Percentage of councils approving (>50%)					100%
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

Measure #0477 Under 1500g infant Not Delivered at Appropriate Level of Care

measure notification and insulative benefice at appropriate bever of care							
Measure Council	Yes	No	Abstain	Total Votes	% Approval*		
Consumer	4	0	0	4	100%		
Health Plan	5	0	0	5	100%		
Health Professional	3	0	1	4	100%		
Provider Organizations	4	0	0	4	100%		
Public/Community Health Agency	0	0	0	0			
Purchaser	7	0	0	7	100%		

QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	25	0	1	26	100%
Percentage of councils approving (>50%)				100%	
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

Measure #0478 Neonatal Blood Stream Infection Rate (NQI #3)

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	4	0	0	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	26	0	0	26	100%
Percentage of councils approving (>50%)					100%
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

Measure #0480 PC-05 Exclusive Breast Milk Feeding

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	3	0	1	4	100%
Provider Organizations	3	1	0	4	75%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	24	1	1	26	96%
Percentage of councils approving (>50%)					100%
Average council percentage approval					96%

^{*}equation: Yes/ (Total - Abstain)

${\bf Measure}~\#0483~{\bf Proportion}~{\bf of}~{\bf Infants}~{\bf 22}~{\bf to}~{\bf 29}~{\bf Weeks}~{\bf Gestation}~{\bf Screened}~{\bf for}~{\bf Retinopathy}~{\bf of}~{\bf Prematurity}$

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%

Health Professional	3	0	1	4	100%
Provider Organizations	3	1	0	4	75%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	24	1	1	26	96%
Percentage of councils approving (>50%)					100%
Average council percentage approval					96%

^{*}equation: Yes/ (Total - Abstain)

Measure #1731 Health Care-Associated Bloodstream Infections in Newborns

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	4	0	0	4	100%
Provider Organizations	3	1	0	4	75%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	25	1	0	26	96%
Percentage of councils approving (>50%)					100%
Average council percentage approval					96%

^{*}equation: Yes/ (Total - Abstain)

Measure #1746 Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)

Measure Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	4	0	0	4	100%
Health Plan	5	0	0	5	100%
Health Professional	4	0	0	4	100%
Provider Organizations	4	0	0	4	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	7	0	0	7	100%
QMRI	2	0	0	2	100%
Supplier/Industry	0	0	0	0	
All Councils	26	0	0	26	100%
Percentage of councils approving (>50%)					100%
Average council percentage approval					100%

^{*}equation: Yes/ (Total - Abstain)

MEASURES WITHDRAWN FROM CONSIDERATION

Nine measures previously endorsed by NQF have not been re-submitted or withdrawn from maintenance of endorsement. Two additional measures were withdrawn after initial submission. The following measures are being retired from endorsement:

Measure	Reason for retirement
0012: Prenatal Screening for Human	Will be superseded by measures currently in
Immunodeficiency Virus (HIV) (AMA/PCPI)	development.
0014: Prenatal Anti-D Immune Globulin	Will be superseded by measures currently in
(AMA/PCPI)	development.
0015: Prenatal Blood Groups (ABO), D (Rh)	Will be superseded by measures currently in
Type (AMA/PCPI)	development.
0016: Prenatal Blood Group Antibody Testing	Will be superseded by measures currently in
(AMA/PCPI)	development.
0333: Severity-Standardized ALOS -	Developer no longer maintains the measure.
Deliveries (Leapfrog Group)	
0474: Birth Trauma – Injury to Neonate (PSI	Withdrawn during Steering Committee
17) (AHRQ)	discussion.
0485: Neonatal Immunization (Child Health	Measure no longer aligns with APIC
Corporation of America)	guidelines
0606: Pregnant women that had HIV testing	Developer elected not to pursue maintenance
(Ingenix)	of endorsement.
0607: Pregnant women that had syphilis	Developer elected not to pursue maintenance
screening (Ingenix)	of endorsement.
0608: Pregnant women that had HBsAg testing	Developer elected not to pursue maintenance
(Ingenix)	of endorsement.
0484: Proportion of infants 22-29 weeks	Withdrawn due to changing evidence and
gestation treated with surfactant who are	practice.
treated within 2 hours of birth (VON)	

APPENDIX A: MEASURE EVALUATION SUMMARY TABLES

0469 PC-01 Elective Delivery

Maintenance Measure (previously time-limited endorsement)

Description: This measure assesses patients with elective vaginal deliveries or elective cesarean sections 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)

Numerator Statement: Patients with elective deliveries with ICD-9-CM Principal Procedure Code or ICD-9-CM 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
- Cesarean section as defined in Appendix A, Table 11.06 while not in Active Labor or experiencing Spontaneous Rupture of Membranes available at: http://manual.iointcommission.org

Denominator Statement: Patients delivering newborns with >= 37 and < 39 weeks of gestation completed **Exclusions:**

- ICD-9-CM Principal Diagnosis Code or ICD-9-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

Adjustment/Stratification: No risk adjustment or risk stratification Not Applicable Not Applicable

Level of Analysis: Facility, Population: National

Type of Measure: Process

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

Measure Steward: The Joint Commission

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-25; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-7; M-0; L-1; I-0; 1b. Performance Gap: H-8; M-0; L-0; I-0

1c. Evidence Quantity: H-7; M-1; L-0; I-0; Quality: H-3; M-4; L-1; I-0; Consistency: H-7; M-0; L-1; I-0

Rationale:

- Significant opportunity for improvement Joint Commission data indicates current performance at 18%.
- Evidence is strong that elective delivery prior to 39 weeks impacts newborn adversely.
- The goal is not 0% because of unusual circumstances that will not be captured by the measure.

2. Scientific Acceptability of Measure Properties: Y-24; N-1

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

2a. Reliability: H-5; M-2; L-0; I-1 2b. Validity: H-4; M-4; L-0; I-0

Rationale:

- Measure has generous exclusions, but two significant exclusions are left out prior Classical C-section and myomectomy –
 developer acknowledges that they are hearing this feedback repeatedly and are considering including, though the number of
 Classical C-sections and myomectomies is quite small.
- Some coding issues "active labor" not easily coded; ICD-10 has greater specificity but Classical C-section and myomectomy are not in the first iteration.
- Exclusions are generous but some "diagnosis creep" may be seen with increased use of allowable exclusions

3. Usability: H-9; M-15; L-1; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-4; M-3; L-0; I-1

3b. QI: H-4: M-3: L-0: I-1

Rationale:

- Some limitations for use with Medicaid not all elements are readily captured in billing codes.
- Some chart review is needed after use of the codes.

0469 PC-01 Elective Delivery

Adopted by the March of Dimes as a major campaign.

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

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-7; M-0; L-1; I-0

4b. Electronic data sources: H-4; M-4; L-0; I-0

4c. Suscep inaccuracies, consequences: H-2; M-4; L-1; I-1

4d. Data collection strategy: H-6; M-2; L-0; I-0

Rationale:

• Data intense but feasible.

• Possibility for overuse of "soft" exclusion criteria.

Steering Committee Recommendation for Endorsement: Y-25; N-0

Rationale: Since endorsement in 2008 this measure has been adopted by many providers and the March of Dimes has launched a major campaign to prevent unnecessary prematurity. Data indicates significant opportunity for improvement and the evidence is strong that newborns are adversely affected by unnecessary early birth. The developers indicate a willingness to include two important exclusions – Classical C-section and myomectomy.

RECOMMENDATION: Strongly recommend additional exclusions for prior Classical C/S and myomectomy

Public & Member Comment

Comments included:

• Comments suggested that this be reported at the clinician level.

Developer response: provider level measures are not the focus of their measure development program.

Committee Response: The Committee noted that it is difficult to "just bring measures down to the clinician level" and that methodologic challenges (small sample size and attribution) result in unstable results at the clinician level. These measures would need testing at the clinician-level prior to specifying that level of analysis.

0470 Incidence of Episiotomy

Maintenance Measure (previously time-limited endorsement)

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,0WQNXZZ,10D07Z3,10D07Z4,10D07Z5,10D07Z6) performed on women undergoing a vaginal delivery (excluding those with shoulder dystocia) 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.

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 NA NA

Level of Analysis: Facility

Type of Measure: Outcome, Process

Data Source: Administrative claims, Paper Records Measure Steward: Christiana Care Health System

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-19; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-5; M-4; L-0; I-0; 1b. Performance Gap: H-6; M-3; L-0; I-0

1c. Evidence Quantity: H-6; M-2; L-0; I-1; Quality: H-4; M-4; L-0; I-1; Consistency: H-6; M-1; L-0; I-1

Rationale:

- Significant literature against episiotomy; evidence for increased risk of 3rd and 4th degree lacerations with episiotomy.
- ACOG supports restricted use of episiotomy.
- Wide variation in provider performance: in 2010 the National Perinatal Information Center reported a national rate of 16.2% with tremendous inter center variation (4.3% to 34.6%).
- Committee members report that when this measure is implemented, rapid improvement is seen.

2. Scientific Acceptability of Measure Properties: Y-19; N-0

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

2a. Reliability: H-8; M-1; L-0; I-0 2b. Validity: H-4; M-5; L-0; I-0

Rationale:

- Uses administrative data; CPT procedure codes are usually coded reliably.
- Developers' comparison with charts: some mismatch but random whether over coding or under coding.
- Only exclusion is shoulder dystocia an appropriate indication for episiotomy.
- Level of analysis at the facility level produces a stable result. Confidence intervals for individual clinicians is very unstable.

3. Usability: H-14; M-4; L-1; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-5; M-1; L-3; I-0

3b. QI: H-5; M-4; L-0; I-0

Rationale:

- Easily understood by multiple audiences.
- NPIC data shows wide variation in episiotomy incidence.
- Where measure has been used, rates of episiotomy are dropping.

4. Feasibility: H-15; M-5; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-8; M-1; L-0; I-0

4b. Electronic data sources: H-8; M-1; L-0; I-0

4c. Suscep inaccuracies, consequences: H-8; M-0; L-1; I-0

4d. Data collection strategy: H-9; M-0; L-0; I-0

Rationale:

- High fidelity in coding.
- Measures is easy to collect and useful for comparisons

0470 Incidence of Episiotomy

Steering Committee Recommendation for Endorsement: Y-19; N-1

Rationale: Current data indicates overuse of episiotomy and wide variation in performance. Evidence and ACOG guidelines support restricted use of episiotomy. When this measure is implemented, rapid performance improvement has been observed.

Public & Member Comment

Comments included:

- Additional exclusions for shortening the second stage of labor;
- Report at the clinician level

Developer response:

- Suggested exclusions did not align with ACOG guidelines and it would be too complicated to capture using current data collection methods.
- Clinician level measures are not the focus of their measure development program.

Committee Response: The Committee agreed with the developer about the exclusions and noted that it is difficult to "just bring measures down to the clinician level" and that methodologic challenges (small sample size and attribution) result in unstable results at the clinician level. These measures would need testing at the clinician-level prior to specifying that level of analysis.

0471 PC-02 Cesarean Section

Maintenance Measure

Description: This measure assesses the number of nulliparous women with a term, singleton baby in a vertex position delivered by cesarean section. 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: Patients with cesarean sections with ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for cesarean section as defined in Appendix A, Table 11.06 available at:

http://manual.jointcommission.org

Denominator Statement: Nulliparous patients delivered of a live term singleton newborn in vertex presentation

Exclusions: • ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for contraindications to vaginal delivery 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

Adjustment/Stratification: 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 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 Birthdate. Each case will be stratified according to the patient age, after the Category Assignments (e.g., numerator, denominator, not in measure population) are completed and the overall rate is calculated.

Set Number Stratified By Age Stratum

PC-02a Overall Rate No allowable value exists for the overall rate. It includes all patients greater than or equal to 8 years and less than 65 years.

PC-02b Age 8 years through 14 years A Patient Age (Admission Date minus Birthdate) greater than or equal to 8 years and less than 15 years.

A Patient Age (Admission Date minus Birthdate) greater than or equal to 20 years and

A Patient Age (Admission Date minus Birthdate) greater than or equal to 25 years and

A Patient Age (Admission Date minus Birthdate) greater than or equal to 30 years and

A Patient Age (Admission Date minus Birthdate) greater than or equal to 35 years and

A Patient Age (Admission Date minus Birthdate) greater than or equal to 40 years and

A Patient Age (Admission Date minus Birthdate) greater than or equal to 45 years and

PC-02c Age 15 years through 19 years A Patient Age (Admission Date minus Birthdate) greater than or equal to 15 years and

less than 20 years.

PC-02d Age 20 years through 24 years less than 25 years.

PC-02e Age 25 years through 29 years

less than 30 years.

PC-02f Age 30 years through 34 years less than 35 years.

PC-02g Age 35 years through 40 years less than 40 years.

PC-02h Age 40 years through 44 years less than 45 years.

PC-02i Age 45 years through 64 years less than 65 years.

Level of Analysis: Facility, Population : National

Type of Measure: Outcome

Data Source: Administrative claims, Paper Records

Measure Steward: The Joint Commision

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-25; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-7; M-0; L-0; I-0; 1b. Performance Gap: H-7; M-0; L-0; I-0

1c. Evidence Quantity: H-6; M-0; L-0; I-0; Quality: H-4; M-2; L-0; I-0; Consistency: H-5; M-1; L-0; I-0

Rationale:

- ACOG says this is the "optimal measure" for Cesarean section because it focuses on the first-time, uncomplicated pregnancy.
- Current performance 27.7% nationwide; rates are stable, not increasing.
- Measure looks at the outcome of the management of labor.
- The low-risk population is responsible for the large overall increase in C-section rates and shows the greatest variation.
- Large regional variations are observed.

0471 PC-02 Cesarean Section

Measure results are related to induction rates; also parallels regional hysterectomy patterns.

2. Scientific Acceptability of Measure Properties: Y-25; N-0

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

2a. Reliability: H-6; M-1; L-0; I-0 2b. Validity: H-4; M-3; L-0; I-0

Rationale:

- Easily extractable from vital records.
- Good definitions.
- Stratification by age adjustment reflects linear rise in C/S rates from age 18 through 40 years (correlation coefficient = 98%).

3. Usability: H-23; M-2; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-6; M-1; L-0; I-0

3b. QI: H-5; M-2; L-0; I-0

Rationale:

- Medicaid program core measure
- Greater incentives may be needed to see greater impact on results.
- Systems issues need to be addressed
- Initially a poorly understood measure significant learning curve as measure is more widely adopted.
- Improved performance on elective delivery < 39 weeks measure may reduce the C/S rate
- Another good measure for population assessment vital records are readily available

4. Feasibility: H-16; M-9; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

- 4a. Byproduct of Care Processes: H-5; M-2; L-0; I-0
- 4b. Electronic data sources: H-7; M-0; L-0; I-0
- 4c. Suscep inaccuracies, consequences: H-4; M-3; L-0; I-0
- 4d. Data collection strategy: H-7; M-0; L-0; I-0

Rationale:

- States, Medicaid agencies and purchasers can do this measure.
- Vital records as an alternative data source.

Steering Committee Recommendation for Endorsement: Y-25; N-0

Rationale: This is considered to be the "optimal measure" for primary Cesarean section. The measure assesses the outcome of the management of labor. Large regional variations are seen. The measure is readily constructed from several data sources.

Public & Member Comment

Comments included:

Comments suggested that this be reported at the clinician level.

Developer response: Clinician level measures are not the focus of their measure development program.

Committee Response: The Committee noted that it is difficult to "just bring measures down to the clinician level" and that methodologic challenges (small sample size and attribution) result in unstable results at the clinician level. These measures would need testing at the clinician-level prior to specifying that level of analysis.

0472 Appropriate Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision- Cesarean Section.

Maintenance Measure

Description: Percentage of patients undergoing cesarean section who receive appropriate prophylactic antibiotics within 60 minutes of the start of the cesarean delivery, unless the patient is already receiving appropriate antibiotics

Numerator Statement: Percentage of women who receive recommended antibiotics within one hour before the start of cesarean section. This requires that (a) the antibiotic selection is consistent with current evidence and practice guidelines, and (b) that the antibiotics are given within an hour before delivery.

If the patient is already receiving appropriate antibiotics, for example for chorioamnionitis, additional dosing is not necessary. **Denominator Statement:** All patients undergoing cesarean section without evidence of prior infection or already receiving prophylactic antibiotics for other reasons. Patients with significant allergies to penicillin and/or cephalosporins AND allegies to gentamicin and/or clindamycin are also excluded.

Exclusions: Women with evidence of prior infection or already receiving prophylactic antibiotics for other reasons; or with significant allergies to penicillin and/or cephalosporins AND allegies to gentamicin and/or clindamycin.

We do not exclude patients having emergency cesarean deliveries. We recognize that while in the case of most urgent and emergent cesarean deliveries administering timely antibiotic prophylaxis will be possible, very rarely clinical circumstances may not permit administration of antibiotic prophylaxis before skin incisions. Specifying these unusual circumstances, especially from readily abstracted medical record data, is not possible/feasible. Allowing a self-defined exclusion risks inappropriate definition. Instead we recognize that ideal performance on this measure may not be 100% given the small number of unusual emergencies and/or other circumstances. Providers/facilities should however target a 100% goal by, among other efforts, considering how antibiotic prophylaxis will be appropriately delivered even in the case of emergencies

Adjustment/Stratification: No risk adjustment or risk stratification n/a The measure may electively be stratified by race, ethnicity, or other variables of interest. These additional variables would be identified and supplied by users according to local needs and interests.

Level of Analysis: Facility, Population: State

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Paper Records

Measure Steward: Massachusetts General Hospital/Partners Health Care System

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-26; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-7; M-1; L-0; I-0; 1b. Performance Gap: H-5; M-2; L-1; I-0

1c. Evidence Quantity: H-8; M-0; L-0; I-0; Quality: H-6; M-2; L-0; I-0; Consistency: H-8; M-0; L-0; I-0

Rationale:

- More than 1 million C-sections every year; high rates of surgical site infection.
- Clear evidence than antibiotic prophylaxis reduces surgical site infection.
- The measure is in use in the MassHealth pay for performance program --, state-wide rates of compliance with the overall measure (timing and selection) were 61% in FY 2008, 75% in RY 2009, and 77% in FY 2010.
- Uncertain impact of antibiotic exposure to fetus; early data indicating change in fetal gut flora with C-section and antibiotic
 exposure; recent studies show changes in microbiological environment but not yet associated with health outcomes need
 longer-term studies to follow babies.

2. Scientific Acceptability of Measure Properties: Y-26; N-0

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

2a. Reliability: H-5; M-3; L-0; I-0 2b. Validity: H-6; M-2; L-0; I-0

Rationale:

- Good specifications.
- Well-tested; includes both timing and antibiotic selection.

3. Usability: H-24; M-2; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-7; M-1; L-0; I-0

3b. QI: H-8; M-0; L-0; I-0

Rationale:

- Used in Massachusetts with steady improvement in past three years.
- Hospitals already collect data for SCIP this is an additional surgical procedure.
- Harmonized with SCIP measures.

0472 Appropriate Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision- Cesarean Section.

4. Feasibility: H-19; M-7; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-7; M-0; L-1; I-0

4b. Electronic data sources: H-2; M-4; L-2; I-0

4c. Suscep inaccuracies, consequences: H-6; M-2; L-0; I-0

4d. Data collection strategy: H-7; M-1; L-0; I-0

Rationale:

• Can't do routine electronic data collection on all systems, but some do have the capability.

Steering Committee Recommendation for Endorsement: Y-26; N-0

Rationale: This measure is harmonized with the SCIP measures, but covers a surgery that is excluded in the SCIP measures. Cesarean section is a high-frequency procedure with significant risk of surgical site infection. Current use in Massachusetts identifies opportunity for improvement and improvement over time when implemented.

Public & Member Comment

Comments included:

• A commenter raised concerns on the ability of EHRs to handle the exclusion criteria.

Developer response: We have worked to use standard data elements as far as possible. We expect that, as with any process of care guideline, there will be individual cases with unusual circumstances. We are hopeful that most of the data collection can be done using common electronic data elements, and that over a period of time important additional factors can be incorporated into the systems.

NQF response: Currently, none of the measures under consideration are specified for use in EHRs; thus, the issues raised have been provided to the developers for their consideration as they move toward an electronic environment. NQF intends to require EHR specifications for all measure in the near future; additional details and guidance on those requirements are under consideration by the Consensus Standards Approval Committee.

Committee Response: The Committee appreciated the comments but agreed it was beyond the scope of their work at this time.

0473 Appropriate DVT Prophylaxis in Women Undergoing Cesarean Delivery

Maintenance measure (previously time-limited endorsement)

Description: Measure adherance to current ACOG, SMFM recommendations for use of DVT prophylaxis in women undergoing cesarean delivery. Current ACOG and SMFM recommendations call for the use of pneumatic compression devices in all women undergoing cesarean delivery who are not already receiving medical VTE prophylaxis. Numerator: Number of women undergoing cesarean delivery receiving either pneumatic compression device or medical prophylaxis prior to cesarean delivery. Denominator: All women undergoing cesarean delivery.

Numerator Statement: Number of women undergoing cesarean delivery who receive either fractionated or unfractionated heparin or heparinoid, or pneumatic compression devices prior to surgery

Denominator Statement: All women undergoing cesarean delivery.

Exclusions: Not receiving medical anticoagulation

Adjustment/Stratification: No risk adjustment or risk stratification N/A N/A

Level of Analysis: Facility Type of Measure: Process

Data Source: Electronic Clinical Data: Electronic Health Record, Electronic Clinical Data: Pharmacy, Paper Records

Measure Steward: Hospital Corporation of America

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-20; N-3

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-3; M-4; L-1; I-0; 1b. Performance Gap: H-1; M-4; L-3; I-0

1c. Evidence Quantity: H-1; M-4; L-3; I-0; Quality: H-1; M-4; L-3; I-0; Consistency: H-3; M-2; L-2; I-0 Rationale:

- Process to prevent an uncommon but catastrophic event pulmonary embolism accounts for 10% maternal deaths in US.
- VTE is the number 1 preventable cause of maternal death.
- Limited data on current performance as it is not in widespread use.
- Recent ACOG practice bulletin (September 2011) recommends DVT prophylaxis. Society of Maternal Fetal Medicine has similar guideline.
- Limited evidence in pregnant patients except for recent study from HCA; extrapolated from experience in other surgical patients. Data from HCA reported a reduction in fatal PE rate from 1.5/100,000 to 0.5/100,000 with use of prophylaxis.
- Cost-effectiveness data suggests low cost/easy to use.
- Does not address antepartum or post-partum DVT– intraoperative use only.
- 3/1000 incidence of DVT in pregnancy though some ascertainment issues; five-fold increase in DVT with C-section.

2. Scientific Acceptability of Measure Properties: Y-24; N-1

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

2a. Reliability: H-3; M-2; L-2; I-0 2b. Validity: H-3; M-4; L-0; I-0

Rationale:

- Data elements are straightforward
- Single exclusion of being on pharmacologic prophylaxis (small number of patients) eases data collection.

3. Usability: H-18; M-6; L-1; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-3; M-4; L-0; I-0

3b. QI: H-4; M-2; L-1; I-0

Rationale:

- Easy to understand
- Easy to drive practice change
- However, does not deal with the problem of continuing compliance through to hospital discharge and longer period of elevated risk.

4. Feasibility: H-13; M-11; L-1; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

- 4a. Byproduct of Care Processes: H-6; M-1; L-1; I-0
- 4b. Electronic data sources: H-5; M-2; L-1; I-0

0473 Appropriate DVT Prophylaxis in Women Undergoing Cesarean Delivery

4c. Suscep inaccuracies, consequences: H-2; M-4; L-2; I-0

4d. Data collection strategy: H-6; M-2; L-0; I-0

Rationale:

- Data field in some electronic records already
- Easy to document

Steering Committee Recommendation for Endorsement: Y-21; N-2

• Rationale: Existing measures of VTE prophylaxis exclude pregnant women/C-section despite being at risk for catastrophic event (PE or death). Preventive measures have been shown to reduce mortality but are not widely used.

Public & Member Comment

Comments included:

- Supportive comments.
- One commenter suggested that the developer create and test a paired measure for continued DVT prophylaxis, which may increase the benefit.

Steering Committee: The Committee agreed to add the suggested measure to the recommendations for future measure development.

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

Maintenance Measure (previously time-limited endorsement)

Description: Percent of live newborn infants that receive hepatitis B vaccination before discharge 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 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. Optional recommended adjusted MEASURE denominator: 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 might include the following (link: http://www.icd10data.com/ICD10CM/Codes/Z00-Z99/Z20-Z28/Z28-/#Z28):

i. Z28.03 Immunization not carried out because of immune compromised state of patient

ii. Z28.04 Immunization not carried out because of patient allergy to vaccine or component

iii. Z28.1 Immunization not carried out because of patient decision for reasons of belief or group pressure

iv. Z28.20 Immunization not carried out because of patient decision for unspecified reason

v. Z28.21 Immunization not carried out because of patient refusal

vi. Z28.29 Immunization not carried out because of patient decision for other reason

vii. Z28.82 Immunization not carried out because of caregiver refusal

The results of this measure should be reported as a separate MEASURE identifying that the coverage excludes infants whose parent(s)/guardian(s) refused hepatitis B vaccine for their infant before hospital or facility discharge (or by 1 month of age if during a prolonged stay).

Adjustment/Stratification: No risk adjustment or risk stratification N/A N/A

Level of Analysis: Clinician: Group/Practice, Clinician: Individual, Facility, Health Plan

Type of Measure: Process

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

: Pharmacy, Electronic Clinical Data: Registry

Measure Steward: Centers for Disease Control and Prevention

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-22: N-2

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-3; M-2; L-0; I-0; 1b. Performance Gap: H-3; M-2; L-0; I-0

1c. Evidence Quantity: H-3; M-2; L-0; I-0; Quality: H-1; M-4; L-0; I-0; Consistency: H-4; M-1; L-0; I-0

Rationale:

- Increasing number of pregnant women are found to be Hepatitis B Surface Antigen (HBsAg) positive (approximately 25,000/year)
- The 2010 National Immunization Study demonstrated that for 50 states and the District of Columbia, the calculated results for birth dose coverage were: median 66.7%; mean 65.7%; minimum 21.4%; maximum 83.3%. There is an APIC recommendation for neonatal immunization,
- Captures initial immunization in the series of three Hepatitis B vaccinations.
- Immunization prevents development of chronic hepatitis infection.

2. Scientific Acceptability of Measure Properties: Y-11; N-13 as written with optional exclusion for parent refusal; If exclusions are mandatory Y=22; N=3

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

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

Rationale:

- Optional exclusions affect standardization and reduce comparability. Developer reports that exclusions are included if hospitals can collect the data.
- Including refusals is important for validity as a performance measure different perspective than for a public health surveillance measure.
- Developers report <3% refusal rate overall; some areas of 10-12% refusal.
- ICD-10 codes for parent refusal (none in ICD-9).

3. Usability: H-4; M-14 L-6; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

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

3a. Public Reporting: H-1; M-3; L-1; I-0

3b. QI: H-1; M-3; L-1; I-0

Rationale:

- Not in use in public reporting
- Difficult to capture refusals until ICD-10

4. Feasibility: H-3; M-19; L-3; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-2; M-2; L-1; I-0

4b. Electronic data sources: H-1; M-3; L-1; I-0

4c. Suscep inaccuracies, consequences: H-0; M-3; L-1; I-1

4d. Data collection strategy: H-0; M-2; L-3; I-0

Rationale:

- Costly to review charts for refusals though numbers are small
- There is cost for initial programming for EHRs, but thereafter an advantage.

Steering Committee Recommendation for Endorsement: Y-22; N-3 with mandatory exclusion for parent refusal

Rationale: This measure conforms to APIC recommendations for neonatal immunization and national rates demonstrate wide variation and opportunity for improvement. The developer agreed to remove the "optional" aspect of exclusions for parental refusal.

Public & Member Comment

Comments included:

- Three supportive comments
- Concerns with the exclusion of parental refusals, including a request that they be measured separately as a component of the numerator, as would be consistent with other NQF-endorsed immunization measures; and a concern that it may be difficult to capture reasons for refusal in EHRs.

Developer response:

- CDC agrees that ideally both measures (birth dose coverage including and excluding parent refusals) would be reported. A
 coverage assessment that includes parent refusals would be the most consistent with all other immunization coverage
 measures. As the ICD-10 codes are adopted and additional technology becomes available, accounting for parent refusals
 could add more granular way to evaluate coverage.
- From a health perspective, hospitals are perceived to have a joint responsibility with providers to educate families (even those wishing to refuse vaccination) on the importance of all childhood vaccinations, as well as on the hepatitis B vaccine as a means for preventing perinatal and household transmission of hepatitis B acquired from persons who may not even know they are infected.
- Failure to account for refusals would underestimate the true success of each hospital's compliance with the quality measure.

Steering Committee: The Committee noted that coding for parental refusals will be standardized with ICD-10 and that should be incorporated into annual updates. The Committee did not change their recommendation.

0476 PC-03 Antenatal Steroids

Maintenance Measure (previously time-limited endorsement)

Description: This measure assesses patients at risk of preterm delivery at 24 0/7-32 0/7 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 Section, PC-04: Health Care-Associated Bloodstream Infections in Newborns, PC-05: Exclusive Breast Milk Feeding).

Numerator Statement: Patients with a full course of antenatal steroids completed prior to delivering preterm newborns (refer to Appendix B, Table 11.0, antenatal steroid medications available at: http://manual.jointcommission.org)

Denominator Statement: Patients delivering live preterm newborns with 24 0/7-32 0/7 weeks gestation completed **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 Administering Antenatal Steroid

• ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for fetal demise as defined in Appendix A, Table

11.09.1 available at: http://manual.jointcommission.org

Adjustment/Stratification: No risk adjustment or risk stratification Not Applicable Not applicable, the measure is not stratified.

Level of Analysis: Facility, Population: National

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data: Registry, Paper Records

Measure Steward: The Joint Commission

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-24; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-5; M-0; L-0; I-0; 1b. Performance Gap: H-5; M-0; L-0; I-0

1c. Evidence Quantity: H-5; M-0; L-0; I-0; Quality: H-5; M-0; L-0; I-0; Consistency: H-5; M-0; L-0; I-0

Rationale:

- Strong data demonstrating the benefit of steroid use; NIH and ACOG recommend use of steroids.
- Change from the original endorsed measure:
 - Requires full course of treatment; (if no time for full course to be administered, patient is excluded)
 - o 32-34 weeks with Premature Rupture of Membranes (PROM) not included
- There is no evidence or guidance for < 24 weeks
- From 2005-2007, data covering more than 90% of deliveries in California found that 23% of the more than 15,000 eligible infants did not receive antenatal steroids. Current Joint Commission data report 64.9% performance.
- Room for improvement; some improvement has been seen
- Another quality question might be whether steroids are overused in some patients. Need more information on the long-term impact of multiple steroid courses on the baby.

2. Scientific Acceptability of Measure Properties: Y-24; N-1

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

2a. Reliability: H-4: M-1: L-0: I-0 2b. Validity: H-5: M-0: L-0: I-0

Rationale:

- Testing indicates high reliability and moderate-high validity.
- The exclusion for patients who do not receive a complete course due to rapid delivery results in lack of credit to the provider for appropriate steroid therapy.

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

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-5; M-0; L-0; I-0

3b. QI: H-5; M-0; L-0; I-0

Rationale:

This measure is on the recommended list of Medicaid core measures.

4. Feasibility: H-6; M-16; L-2; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences

0476 PC-03 Antenatal Steroids

identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-3; M-2; L-0; I-0

4b. Electronic data sources: H-1; M-3; L-1; I-0

4c. Suscep inaccuracies, consequences: H-4; M-1; L-0; I-0

4d. Data collection strategy: H-4; M-0; L-1; I-0

Rationale:

Some chart review is needed

Steering Committee Recommendation for Endorsement: Y-25; N-0

Rationale: There is significant room for improvement in performance for this evidence-based process of care that improves outcomes for premature infants. The measure is well-specified and demonstrates good reliability and validity.

Public & Member Comment

Comments included:

- Suggestion that specs be updated to bring them in line with the new ACOG Committee Opinion (Feb 2011)
- Clarification on the list of reasons for the exclusion criteria "documented reason for not administering antenatal steroid," noting that without a specified list, there will be inconsistency in measurement with facilities, who will provide their own coding reasons.

Developer response:

- Agreed to update specs.
- Data analysis is done by trained abstractors who are able to assess whether or not the documented reasons meet the specifications

Steering Committee: The Committee agreed with the updated specifications and did not change their recommendation.

1746 Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)

New Measure

Description: Percentage of pregnant women who are eligible for and receive appropriate intrapartum antibiotic prophylaxis (IAP) for Group B Streptococcus (GBS)

Numerator Statement: All eligible patients who receive intrapartum antibiotic prophylaxis for GBS.

Denominator Statement: All women delivering live infants, except certain classes (described in response to 2a1.9 below) who are specifically deemed not to be at risk of vertical transmission of GBS.

Exclusions: Women not included in the denominator defined above, with specific exclusions as described below.

Adjustment/Stratification: No risk adjustment or risk stratification **Level of Analysis**: Facility, Integrated Delivery System, Population : State

Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data: Electronic Health Record, Paper Records

Measure Steward: Massachusetts General Hospital

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-26; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-5; M-0; L-0; I-0; 1b. Performance Gap: H-2; M-3; L-0; I-0

1c. Evidence Quantity: H-3; M-2; L-0; I-0; Quality: H-3; M-2; L-0; I-0; Consistency: H-2; M-3; L-0; I-0

Rationale:

- New data from Massachusetts suggests more opportunity for improvement that previously thought.
- In use in Massachusetts improved 71 to 87% over 3 years.
- CDC guidelines recommend prophylaxis for Group B Strep since it prevents lethal infection in newborns.

2. Scientific Acceptability of Measure Properties: Y-24; N-2

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

2a. Reliability: H-3; M-1; L-0; I-0 2b. Validity: H-3; M-1; L-0; I-0

Rationale:

- Intended to align with CDC guidelines; developer will clarify specifications especially for pre-term screening.
- Reliability and validity rated moderate-high.

3. Usability: H-14; M-11; L-1; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-3; M-1; L-0; I-0

3b. QI: H-3; M-1; L-0; I-0

Rationale:

- In use in Massachusetts Medicaid program
- Unclear potential for unintended consequences: No data on long-term impact on children of exposure to antibiotics—. Though there is a not a clear relationship, gram negative infections have increased while GBS has declined.

4. Feasibility: H-6; M-19; L-1; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-4; M-0; L-0; I-0

4b. Electronic data sources: H-2; M-2; L-0; I-0

4c. Suscep inaccuracies, consequences: H-1; M-3; L-0; I-0

4d. Data collection strategy: H-3; M-1; L-0; I-0

Rationale:

Requires manual chart abstraction

Steering Committee Recommendation for Endorsement: Y-26; N-0

Rationale: A measure of GBS prophylaxis was not recommended in the 2008 Perinatal project because data at that time indicated high performance. Newer data indicates that performance is not as high as previously thought. This measure aligns with evidence-based quidelines from CDC.

Public & Member Comment

1746 Intrapartum Antibiotic Prophylaxis for Group B Streptococcus (GBS)

Comments included:

• Questions on details of the specifications and ability of EHRs to manage the many different data elements required to calculate the measure.

Developer response: The developer clarified the details for the commenters.

Steering Committee: The Committee had no additional comments and did not wish to change their recommendation.

0477 Under 1500g infant Not Delivered at Appropriate Level of Care

Maintenance Measure

Description: The number per 1,000 livebirths of <1500g infants delivered at hospitals not appropriate for that size infant.

Numerator Statement: Liveborn infants (<1500gms but over 24 weeks gestation) born at the given birth hospital Denominator Statement: All live births over 24 weeks gestation at the given birth hospital. NICU Level III status is defined by the State

Department of Health or similar body typically using American Academy of Pediatrics Criteria.

Exclusions: Stillbirths and livebirths <24weeks gestation.

Adjustment/Stratification: No risk adjustment or risk stratification n.a. none

Level of Analysis: Facility, Health Plan, Population: County or City, Population: National, Population: Regional, Population: State

Type of Measure: Outcome

Data Source: Electronic Clinical Data: Registry, Other

Measure Steward: California Maternal Quality Care Collaborative

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-25; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-5; M-0; L-0; I-0; 1b. Performance Gap: H-5; M-0; L-0; I-0

1c. Evidence Quantity: H-3; M-1; L-0; I-0; Quality: H-3; M-1; L-0; I-0; Consistency: H-4; M-0; L-0; I-0

Rationale:

- 2010 meta-analysis by CDC demonstrated a significant survival benefit for VLBW infants in Level 3 NICU (60% increase in mortality outside Level 3 NICU)
- Measure has been used at state-level for many years regionalization of care ongoing for 30+ years but lately seeing deregionalization due to economic factors
- In California (2008) the range of VLBW births in non-level III facilities was 0 to 15 per thousand with a mean of 4.8. The distribution is not evenly distributed.
- In California, developers found that failure to transfer is not common among rural hospitals but more frequent among urban hospitals where a Level 3 NICU is close by likely economic factors rather than medical factors determine transfer.
- All states have networks for transfers.

2. Scientific Acceptability of Measure Properties: Y-25; N-0

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

2a. Reliability: H-5; M-0; L-0; I-0 2b. Validity: H-4; M-1; L-0; I-0

Rationale:

- This measure uses AAP definition of Level 3 NICU. States use various definitions.
- Specifications are precise
- Standard reporting under state vital statistics
- Excludes hospital with <50 deliveries a single event distorts the results

3. Usability: H-17; M-8; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

3a. Public Reporting: H-1: M-3: L-1: I-0

3b. QI: H-2; M-2; L-1; I-0

Rationale:

- EMTALA law concerns misinterpreted requires evaluation but does not preclude indicated transfer.
- This measure addresses system and administrative accountability for coordinating maternal transport.
- Need to involve EMS in quality improvement as transfer protocols typically require transport to nearest hospital rather than most appropriate hospital.
- Public reporting of this information likely to have big impact on local community and hospital trustees.

4. Feasibility: H-23; M-2; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

- 4a. Byproduct of Care Processes: H-5; M-0; L-0; I-0
- 4b. Electronic data sources: H-3; M-2; L-0; I-0
- 4c. Suscep inaccuracies, consequences: H-4; M-1; L-0; I-0
- 4d. Data collection strategy: H-5; M-0; L-0; I-0

0477 Under 1500g infant Not Delivered at Appropriate Level of Care

Rationale:

- Easy to report
- Collected in state birth data
- <1% missing data</p>

Steering Committee Recommendation for Endorsement: Y-25; N-0

Rationale: This measure assesses appropriate transfer of VLBW babies to hospitals that greatly improve their chance of survival. In recent years, previously established regional transfer networks have been breaking down and transfer is not occurring, possibly due to economic rather than medical reasons. Current use of the measure in California indicates a large opportunity for improvement.

Public & Member Comment

Comments included:

 Request to expand the exclusion criteria to include reasons outside of the health care system's control for failure to transport to a hospital with appropriate levels of care services (e.g. very late presentation in active labor, lack of safe transportation, distance to NICU in rural areas).

Developer response:

• There are some cases in which it is out of the hospital/doctor's control that the mother delivers a baby at a lower level location. This is well understood and recognized by the developer. For this reason, the measure does not expect a zero rate, just a low rate not different from the normal distribution. When California hospitals were examined, a small group of hospitals with very high rates stood out from their peers. Interestingly these were not in distant rural areas but in urban areas where referral centers were close but the practice pattern was to transfer the baby after birth rather than the mother before birth. Currently this measure can easily be calculated using administrative data and setting up exclusions (requiring chart review for every case) would significantly increase the collection burden.

Steering Committee: The Committee did not change their recommendation on the measure.

0478 Neonatal Blood Stream Infection Rate (NQI #3)

Maintenance Measure (previously time-limited endorsement)

Description: Percentage of high-risk newborn discharges with an ICD-9-CM diagnosis code of bloodstream infection

Numerator Statement: Discharges among cases meeting the inclusion and exclusion rules for the denominator with an ICD-9-CM code

for bloodstream infection in any secondary diagnosis field Denominator Statement: All newborns and outborns with

- 1) Birth weight 500 to 1499g OR
- 2) Gestational age between 24 and 30 weeks OR
- 3) Birth weight greater than or equal to 1500g AND
- in-hospital death OR
- operating room procedure OR
- mechanical ventilation OR
- age in days less than 2 AND transferred from another health care facility

Exclusions: Exclude cases:

- with principal diagnosis code of sepsis or secondary diagnosis code present on admission
- with birth weight less than 500 grams
- with length of stay less than 2 days
- with missing data for (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)

See Pediatric Quality Indicators Appendices:

• Appendix L – Low Birth Weight Categories

http://gualityindicators.ahrg.gov/Downloads/Software/SAS/V43/TechnicalSpecifications/PDI%20Appendices.pdf

Adjustment/Stratification: 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 (500g groups), modified CMS DRG, congenital anomolies, transfer-in status and the availability of point of origin. The specific covariates retained in the model for this measure are listed below. The reference population used in the regression is the universe of discharges for states that participate in the HCUP State Inpatient Data (SID) for the years 2008, a database consisting of 43 states and approximately 6 million pediatric discharges. The expected rate is computed as the sum of the predicted value for each case divided by the number of cases for the unit of analysis of interest (i.e., hospital). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied by the reference population rate.

Specific covariates used for this measure:

Birth Weight 1000 to 2499 Birth Weight 750 to 999 Birth Weight <500 to 749

Modified DRG 1501 Neonates, died or transferred to another acute care

facility

Congenital anomalies category 1 Gastrointestinal Congenital anomalies category 5 Cardiovascular 8 Other

Congenital anomalies category

TRNSFER Transfer-in

NOPOUB04 UB-04 Point-of-Origin Data Not Available Not applicable

Level of Analysis: Facility Type of Measure: Outcome Data Source: Administrative claims

Measure Steward: Agency for Healthcare Research and Quality

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-25; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-5; M-0; L-0; I-0; 1b. Performance Gap: H-4; M-1; L-0; I-0

1c. Evidence Quantity: H-4; M-1; L-0; I-0; Quality: H-2; M-3; L-0; I-0; Consistency: H-2; M-2; L-0; I-1

Rationale:

- Important patient safety-related outcome measure.
- Increased incidence of infection in VLBW babies

2. Scientific Acceptability of Measure Properties: Y-23; N-2

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

2a. Reliability: H-2; M-3; L-0; I-0 2b. Validity: H-1; M-4; L-0; I-0

0478 Neonatal Blood Stream Infection Rate (NQI #3)

Rationale:

- Uses discharge billing data
- No chart based validation; user feedback assessed.
- Risk model includes transfers into hospital. Some recent changes to the measure due to harmonization efforts AHRQ estimates has very little impact on mean rates or distribution
- Exclusions for specific bacteria only if present on admission
- ICD-9 to ICD-10 conversion in draft; ICD-10 has more specific codes for certain bacteria
- Includes larger babies who have certain characteristics as proxy for "likely to have been in NICU"
- Developer notes coding for mechanical ventilation is generally good as it is justification for longer length of stay

3. Usability: H-13; M-11; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-2; M-3; L-0; I-0

3b. QI: H-3; M-2; L-0; I-0

Rationale:

- Harmonized with new Joint Commission measure
- Transfers not a huge impact

4. Feasibility: H-18; M-7; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-4; M-1; L-0; I-0

4b. Electronic data sources: H-4; M-1; L-0; I-0

4c. Suscep inaccuracies, consequences: H-2; M-3; L-0; I-0

4d. Data collection strategy: H-4; M-1; L-0; I-0

Rationale:

Based on administrative data.

Preliminary Assessment of Criteria Met/Suitable for Endorsement: Y-25; N-0

(All criteria met, but final recommendation pending further information and/or evaluation of related and competing measures) Comments:

- Uses discharge billing data
- Important patient safety-related outcome measure.

5. Related and Competing Measures (5a. Harmonization; 5b. Superior to competing measures)

1731 Healthcare-associated bloodstream infections in newborns (Joint Commission)

303 Late sepsis or meningitis in neonates (risk-adjusted) (VON)

304 Late sepsis or meningitis in VLBW neonates (risk-adjusted) (VON)

Comments:

The different data streams are important for different users: states, Medicaid, and purchasers do not have access to chart data and rely on administrative data; Registry measures provide more clinical detail for the feedback/quality improvement program. The combined coding and chart review of the Joint Commission is important for accreditation purposes.

Steering Committee Recommendation for Endorsement: Y-10; N-8 to recommend both 478 and 1731 as harmonized measures with different data streams

Steering Committee members acknowledged the added burden of multiple measures on hospitals and struggled with evaluating competing measures for hospital-acquired infections. The Committee noted that the variety of users with different data capabilities justify multiple, harmonized measures at this time.

Public & Member Comment

Comments included:

- Questions about the specifications
- Concerns about having three separate measures on hospital acquired infections and requests that the measures be harmonized.

0478 Neonatal Blood Stream Infection Rate (NQI #3)

Developer response: The developer clarified the specifications.

Steering Committee: Measure 1731 was created by The Joint Commission (TJC) when it selected five NQF-endorsed measures, including measure 478, for its Perinatal Core Set. Measures 478 and 1731 are fully harmonized measures within the limits of their data sources and measure 1731 is also harmonized with the other four measures in TJC Perinatal Core Set (0469 Elective Delivery < 39 weeks; 0471 Cesarean section; 0476 Antenatal Steroids; and 0480 Exclusive Breast Milk Feeding) for use in TJC's performance measurement programs. Measures 478 and 1731 differ from related measure 304 in that they also capture larger babies who experience in-hospital death; operating room procedure; mechanical ventilation; or transfers in less than 2 days of age. Measure 478 is based on administrative data and is collected in the HCUP State Inpatient Databases that are widely used by states.

The Committee understands the concerns about multiple related measures, but in the absence of head-to-head comparisons of the measures the Committee cannot make any judgments as to differences in reliability and validity. All three measures are widely used and each is useful to different user groups. After reviewing and discussing the comments, the Committee did not change its recommendation of all three measures.

1731 Health Care-Associated Bloodstream Infections in Newborns

New Measure

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 Section, PC-03: Antenatal Steroids, PC-05: Exclusive Breast Milk Feeding).

Numerator Statement: Newborns with septicemia or bacteremia with an ICD-9-CM Other Diagnosis Codes for septicemias as defined in Appendix A, Table 11.10.1 OR one or more ICD-9-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10 and one diagnosis code for newborn bacteremia from Table 11.11 available at:

http://manual.iointcommission.org

Denominator Statement: Liveborn newborns with an ICD-9-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 an ICD-9-CM Other Diagnosis Codes for birth weight = 1500g as defined in Appendix A, Table 11.15, 11.16 or 11.17 OR Birth Weight = 1500g who experienced one or more of the following:

- Experienced death
- 0 ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for major surgery as defined in Appendix A, Table 11.18
- ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for mechanical ventilation as defined in Appendix 0 A, Table 11.19
- Transferred in from another acute care hospital or health care setting within 2 days of birth.

Exclusions:

- ICD-9-CM Principal Diagnosis Code for sepsis as defined in Appendix A, Table 11.10.2
- ICD-9-CM Principal Diagnosis Code for liveborn newborn as defined in Appendix A, Table 11.10.3 AND ICD-9-CM Other Diagnosis Codes for newborn septicemia or bacteremia as defined in Appendix A, Table 11.10
- ICD-9-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 OR > 120 days
- Enrolled in clinical trials

Adjustment/Stratification: Statistical risk model Logistic regression

Model Risk Factors: Intercept Intercept

Birth Weight 1250g to 2499g Birth Weight 1000 to 1249g Birth Weight 500 to 999a

Modified DRG Newborn Transfers Out or Died Congenital Anomaly **Gastrointestinal Anomaly** Congenital Anomaly Cardiovascular Anomaly **Congenital Anomaly** Other Anomaly

Out-born Birth Newborns Transfers In Not applicable, the measure is not stratified.

Level of Analysis: Facility, Population: National

Type of Measure: Outcome

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

Measure Steward: The Joint Commission

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-20; N-4

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-3: M-1: L-0: I-0: 1b. Performance Gap: H-3: M-1: L-0: I-0

1c. Evidence Quantity: H-1; M-2; L-0; I-0; Quality: H-2; M-1; L-0; I-0; Consistency: H-2; M-1; L-0; I-0

Rationale:

- Significant problem especially for VLBW infants
- Infections increase LOS and costs
- Variable rates reported: 6-33%
- Very similar to measure 478 harmonized within limits of data sources

2. Scientific Acceptability of Measure Properties: Y-21; N-0

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

2a. Reliability: H-1; M-3; L-0; I-0 2b. Validity: H-0; M-3; L-0; I-0

Rationale:

1731 Health Care-Associated Bloodstream Infections in Newborns

- Risk-adjusted outcome measure not statistically significant results Committee noted that measure implementers could change the reporting strategy such as using a 90% confidence interval rather than 95%
- Moderate reliability and validity
- Some coding issues noted.

3. Usability: H-9; M-12; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-2; M-1; L-0; I-1

3b. QI: H-3; M-0; L-0; I-1

Rationale:

- Improvement seen with use of the measure.
- Several similar measures for healthcare-acquired infection in newborns. Measure is harmonized with claims-based measure 478.

4. Feasibility: H-7: M-14: L-0: I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-3; M-1; L-0; I-0

4b. Electronic data sources: H-1; M-2; L-0; I-1

4c. Suscep inaccuracies, consequences: H-1; M-3; L-0; I-0

4d. Data collection strategy: H-4; M-0; L-0; I-0

Rationale:

Requires some chart abstraction

Preliminary Assessment of Criteria Met/Suitable for Endorsement: Y-21; N-0

(All criteria met, but final recommendation pending further information and/or evaluation of related and competing measures) Comments:

• This is an important, adverse outcome measure.

5. Related and Competing Measures (5a. Harmonization; 5b. Superior to competing measures)

478 Nosocomial blood stream infections in neonates (NQI #3) (AHRQ)

303 Late sepsis or meningitis in neonates (risk-adjusted) (VON)

304 Late sepsis or meningitis in VLBW neonates (risk-adjusted) (VON)

Comments:

- Committee had some difficulty comparing 478 and 1731 particularly for the exclusion of infection at the time of birth but once clarified were comfortable that the measure captured "health-care acquired" infections
- The different data streams are important for different users: states, Medicaid, and purchasers do not have access to chart data and rely on administrative data; Registry measures provide more clinical detail for the feedback/quality improvement program. The combined coding and chart review of the Joint Commission is important for accreditation purposes.

Steering Committee Recommendation for Endorsement: Y-10; N-8 to recommend both 478 and 1731 due to harmonized measures with different data streams

Rationale:

Steering Committee members acknowledged the added burden of multiple measures on hospitals and struggled with evaluating competing measures for hospital-acquired infections. The Committee noted that the variety of users with different data capabilities justify multiple, harmonized measures at this time.

Public & Member Comment

Comments included:

- Questions about the specifications
- Concerns about having three separate measures on hospital acquired infections and requests that the measures be harmonized.

Developer response: The developer responded to the questions about the specifications.

Steering Committee: Measure 1731 was created by The Joint Commission (TJC) when it selected five NQF-endorsed measures, including measure 478, for its Perinatal Core Set. Measures 478 and 1731 are fully harmonized measures within the limits of their data

1731 Health Care-Associated Bloodstream Infections in Newborns

sources and measure 1731 is also harmonized with the other four measures in TJC Perinatal Core Set (0469 Elective Delivery < 39 weeks; 0471 Cesarean section; 0476 Antenatal Steroids; and 0480 Exclusive Breast Milk Feeding) for use in TJC's performance measurement programs. Measures 478 and 1731 differ from related measure 304 in that they also capture larger babies who experience in-hospital death; operating room procedure; mechanical ventilation; or transfers in less than 2 days of age. Measure 478 is based on administrative data and is collected in the HCUP State Inpatient Databases that are widely used by states.

The Committee understands the concerns about multiple related measures, but in the absence of head-to-head comparisons of the measures the Committee cannot make any judgments as to differences in reliability and validity. All three measures are widely used and each is useful to different user groups. After reviewing and discussing the comments, the Committee did not change its recommendation of all three measures.

0304 Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (risk-adjusted)

Maintenance Measure

Description: Standardized rate and standardized morbidity ratio for nosocomial bacterial infection after day 3 of life for very low birth weight infants, including infants with birth weights between 401 and 1500 grams and infants whose gestational age is between 22 and 29 weeks.

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: Exclude patients 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 The risk adjustment process begins by using logistic regression to model the infection measure on model covariates: gestational age and its squared term, small for gestational age (Yes/No), multiple gestation (Yes/No), APGAR score at 1 minute (0-10), infant gender (Female, Male), Maternal Race/Ethnicity (Black, Hispanic, White, Asian, Other), Vaginal Delivery (Yes/No), Major Birth Defect (Yes/No) and Birth Location (Inborn, Outborn).

An estimate is made of the "systematic variation" associated with the hospital standardized morbidity ratios (SMRs) using the method suggested by Martuzzi and Hills (Martuzzi M and Hills M, Estimating the degree of heterogeneity between event rates using likelihood, Am J of Epi, 1995, 141, 4, 369-374. This method assumes that the SMRs are distributed gamma, and that deviations from the gamma distribution are associated with random variation. The systematic variation is used to "shrink" center SMR values and their confidence limits based on the number of infants reported (see, e.g., Simpson J et al, Analysing differences in clinical outcomes between hospitals, Qual Saf Health Care, 2003, 12,

257-262. The values for centers with a smaller number of infants shrink more toward the mean of all centers than do centers with more infants. Values for estimates of the number of observed cases minus the number of expected cases (O-E) and control limits for O-E values are also shrunken using the systematic variation value.

The shrinkage method described above is the "gamma-Poisson" approach to filtering random variation associated with Nosocomial Bacterial Infection as a risk adjusted indicator of performance. This approach has been used in other settings for documenting hospital performance. N/A

Level of Analysis: Facility
Type of Measure: Outcome

Data Source: Electronic Clinical Data: Registry Measure Steward: Vermont Oxford Network (VON)

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-26; N-0

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-3; M-2; L-0; I-0; 1b. Performance Gap: H-4; M-1; L-0; I-0

1c. Evidence Quantity: H-2; M-1; L-0; I-1; Quality: H-2; M-2; L-0; I-0; Consistency: H-4; M-0; L-0; I-0 Rationale:

- VLBW infants at much higher risk for infection most vulnerable population
- Current performance 15% infection rate
- A different measure from 478 and 1731 because it focuses on the high-risk, VLBW babies who have higher infection rates. Measures 478 and 1731 address all newborns.

0304 Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (risk-adjusted)

2. Scientific Acceptability of Measure Properties: Y-26; N-0

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

2a. Reliability: H-2; M-3; L-0; I-0 2b. Validity: H-1; M-4; L-0; I-0

Rationale:

Risk model slightly different for this population compared to the overall population in measure 303.

3. Usability: H-13; M-11; L-1; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

3a. Public Reporting: H-2: M-2: L-1: I-0

3b. OI: H-4; M-1; L-0; I-0

Rationale:

- 80% of VLBW infants in US enrolled in VON
- A number of states have focused on this VLBW measure

4. Feasibility: H-11; M-14; L-1; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-5; M-0; L-0; I-0

4b. Electronic data sources: H-1; M-3; L-1; I-0

4c. Suscep inaccuracies, consequences: H-3; M-1; L-0; I-1

4d. Data collection strategy: H-3; M-1; L-0; I-1

Rationale:

80% of VLBW babies born in the US are currently reported to the VON registry. The data is already collected with benchmarking and feedback to the participants. VON data is not public reported.

Preliminary Assessment of Criteria Met/Suitable for Endorsement: Y-25; N-1

(All criteria met, but final recommendation pending further information and/or evaluation of related and competing measures) Comments:

• VLBW infants are an important subgroup with very high risk of infection

5. Related and Competing Measures (5a. Harmonization; 5b. Superior to competing measures)

478 Nosocomial blood stream infections in neonates (NQI #3) (AHRQ)

1731 Healthcare-associated bloodstream infections in newborns (Joint Commission)

303 Late sepsis or meningitis in neonates (risk-adjusted) (VON)

Comments:

- 80% of VLBW infants are in VON registry; hospitals will continue participation
- VLBW infants a special population not captured independently in 478 or 1371 with high infection rates around 15%

Steering Committee Recommendation for Endorsement: Y-9; N-8

Rationale: The Committee agreed that this measure is addresses a special population not captured independently in 478 or 1731 with high infections rates (15%) but Committee members also note that VON data is not publicly available even though 80% of VLBW infants are included in the network.

Public & Member Comment

Comments included:

- Questions about the specifications
- Concerns about having three separate measures on hospital acquired infections and requests that the measures be harmonized.
- Concerns about the ability of EHRs to handle the measure.

Developer:

- VON measures are based on specific data items that require adherence to a clear definition of that item to ensure consistency
 across reporting centers and the interpretability of the measure across centers. As you mention, we believe these are critical
 to ensure the appropriateness, accuracy, and importance of the individual measures. Standard codes do not directly align
 with the VON measure definitions, and are also subject to data quality and reliability concerns.
- VON has been in discussions with various EHR providers, including Epic, regarding the feasibility of obtaining measures from

0304 Late Sepsis or Meningitis in Very Low Birth Weight (VLBW) Neonates (risk-adjusted)

electronic records. We welcome further discussions and are committed to working with EHR vendors to reduce the data collection burden while maintaining the quality of the data measures.

Steering Committee: The Committee agreed that measure 304 was a related HAI measure but is quite distinct in that it 1) focuses on a very-high risk population—VLBW infants with a infection rate of 15% (VLBW represents only 1.5% of all births); 2) the measure only applies to hospitals with NICUs (approximately 800-900 hospitals in the US); and uses clinical data for the Vermont Oxford Network registry that captures 80% of VLBW infants in the US.

The Committee understands the concerns about multiple related measures, but in the absence of head-to-head comparisons of the measures the Committee cannot make any judgments as to differences in reliability and validity. All three measures are widely used and each is useful to different user groups. After reviewing and discussing the comments, the Committee did not change its recommendation of all three measures.

0480 PC-05 Exclusive Breast Milk Feeding

Maintenance Measure

Description: This measure assesses the number of newborns exclusively fed breast milk feeding 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). Numerator Statement: Newborns that were fed breast milk only since birth

Denominator Statement: Single term liveborn newborns discharged from the hospital with ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for single liveborn newborn as defined in Appendix A, Table 11.20.1available at: http://manual.iointcommission.org

Exclusions:

- Admitted to the Neonatal Intensive Care Unit (NICU) at this hospital during the hospitalization
- ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for galactosemia as defined in Appendix A, Table 11.21
- ICD-9-CM Principal Procedure Code or ICD-9-CM 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
- Documented Reason for Not Exclusively Feeding Breast Milk
- Patients transferred to another hospital
- ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for premature newborns as defined in Appendix A,

Table 11.23

Adjustment/Stratification: No risk adjustment or risk stratification Not Applicable

Level of Analysis: Facility, Population: National

Type of Measure: Process

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

Measure Steward: The Joint Commission

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-21: N-3

(1a. High Impact: 1b. Performance Gap. 1c. Evidence)

1a. Impact: H-4; M-1; L-0; I-0; 1b. Performance Gap: H-4; M-1; L-0; I-0

1c. Evidence Quantity: H-4; M-1; L-0; I-0; Quality: H-5; M-0; L-0; I-0; Consistency: H-5; M-0; L-0; I-0

Rationale:

- Documented medical benefits to baby; some issues with intent and implementation of "exclusive"
- Exclusive breastfeeding during hospitalization and at discharge increases longer term breastfeeding
- Current performance = 41%
- Data presented on racial and ethnic disparities- large disparities; very susceptible to values of the patient population
- Large nursing component a systems issue of the hospital environment
- Goal is not 100% -- Healthy People 2010 set a 75% target

2. Scientific Acceptability of Measure Properties: Y-22; N-2

(2a. Reliability – precise specifications, testing: 2b. Validity – testing, threats to validity)

2a. Reliability: H-3; M-2; L-0; I-0 2b. Validity: H-5; M-0; L-0; I-0

Rationale:

- A Committee member noted that if the measure is "risk-adjusted" for race and educational level, 40% of the variance is removed
- Measure is not stratified for disparities developers note lack of reliability in the data element for race needed for stratification. Some Committee members argued that "rules now exist" to assign race.
- Exclusions for NICU, HIV, multiple births, transfers, mom taking drugs or medications
- Sampling is allowed

3. Usability: H-16; M-6; L-2; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement) 3a. Public Reporting: H-5; M-0; L-0; I-0

3b. QI: H-4; M-1; L-0; I-0

Rationale:

0480 PC-05 Exclusive Breast Milk Feeding

- Would also be good as a population –level measure communities can facilitate change in attitudes and cultural values
- Health benefits for the child and the mother
- The bar may be too high for some users consider intermediate process measures to facilitate adoption

4. Feasibility: H-9; M-12; L-3; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-4; M-1; L-0; I-0

4b. Electronic data sources: H-5: M-0: L-0: I-0

4c. Suscep inaccuracies, consequences: H-2; M-2; L-0; I-0

4d. Data collection strategy: H-3; M-2; L-0; I-0

Rationale:

- Possible encroachment on patient autonomy overzealous insistence on breastfeeding can alienate mothers
- Labor intensive to collect data unless data collection (feeding) forms are designed well
- An important measure for Medicaid

Steering Committee Recommendation for Endorsement: Y-20; N-4

Rationale: Breast milk feeding confers many health benefits to mother and child. Current rates of breast milk feeding are low with much room for improvement. Supporting breast milk feeding requires strong systems support and significant nursing involvement.

Public & Member Comment

Comments included:

- Many comments noting the benefits of breastfeeding, but raising concerns about "mandated breastfeeding". Commenters were also concerned about a woman's right to choose whether or not to breastfeed, and whether the measure would prevent women who chose not to breastfeed from receiving proper education and information on alternatives.
- Measure also received lots of supportive comments, stating that the health reasons for breastfeeding are well documented, that the measure would not mandate breastfeeding for all babies, and that performance for this measure is not expected to be at 100%.

Steering Committee:

The Committee underscored the significant health benefits for newborns (reduction in otitis media, respiratory tract infections, atopic dermatitis, gastroenteritis, type 2 diabetes, sudden infant death syndrome, and obesity) and mother (decreased risk for type 2 diabetes, ovarian cancer, and breast cancer) conferred by breastfeeding and support all efforts to optimize maternal education, encouragement, and support to enable women to make the healthiest choices for herself and her child. The Committee agreed that improving support for mothers who wish to breastfeed does not equal removing a choice. The Committee acknowledged that the target for this measure is not 100% and that the potential unintended consequences of "inappropriate coercion" should be monitored.

The Committee noted that current performance is quite low at 40% with much room for improvement. Both the Committee and the developer agreed that the purpose of the measure is to eliminate impediments to breastfeeding. According to the CDC, (http://www.cdc.gov/breastfeeding/data/reportcard.htm) "less than 5% of U.S. infants are born in Baby-Friendly hospitals, a global designation that indicates best practices in maternity care to support breastfeeding mothers. The hospital period is critical for mothers and babies to learn to breastfeed, and hospitals need to do more to support them. Birth facility policies and practices significantly impact whether a woman chooses to start breastfeeding and how long she continues to breastfeed." The Committee recommends additional process measures to assist facilities in improving support for breastfeeding.

The Committee also noted that public policies impact support of breastfeeding. The Committee pointed to external barriers to breast feeding include the Family Leave Act providing mothers only with up to 12 weeks of unpaid, job-protected leave; health insurers may not cover the costs of breast pumps, donor human milk for at risk preterm infants, or a follow up nursing visit at home to facilitate breast feeding success; and most mothers are out of the hospital before breastfeeding is well established. While the hospital maternity stay is such a short, but critical, window of time, and hospital routine and culture may undermine women's ability to breast feed, this is also a major social issue that has long-term health care implications. The Committee strongly encourages additional public policies to encourage and support women's ability to breast feed.

The Committee agreed to maintain their recommendation of the measure.

0483 Proportion of Infants 22 to 29 Weeks Gestation Screened for Retinopathy of Prematurity.

Maintenance Measure

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

Numerator Statement: Number of infants 22 to 29 weeks gestation 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 22 to 29 weeks gestation 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 hirth
- 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 N/A Reports are stratified by gestational age, birth location and birth weight category.

Level of Analysis: Facility Type of Measure: Process

Data Source: Administrative claims, Electronic Clinical Data: Electronic Health Record, Electronic Clinical Data: Registry, Paper

Records

Measure Steward: Vermont Oxford Network

STEERING COMMITTEE MEETING 11/29-30/2011

Importance to Measure and Report: Y-21; N-4

(1a. High Impact: 1b. Performance Gap, 1c. Evidence)

1a. Impact: H-4; M-1; L-0; I-0; 1b. Performance Gap: H-0; M-4; L-1; I-0

1c. Evidence Quantity: H-4; M-0; L-0; I-1; Quality: H-2; M-2; L-1; I-0; Consistency: H-3; M-2; L-0; I-0

Rationale:

- Screening recommended by AAP and AAO
- VON data moderate opportunity for improvement (not published data); 79% performance at the 10th percentile.
- APP recommendation up to 30 6/7 weeks but VON eligibility criteria limits measure to 29 6/7 weeks
- Larger babies are often discharged or transferred prior to appropriate time of screening and may be lost to follow-up; < 29
 weeks targets babies who are still in hospital when screening should occur
- Risk is higher at lower gestational ages

2. Scientific Acceptability of Measure Properties: Y-23; N-2

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

2a. Reliability: H-4; M-1; L-0; I-0 2b. Validity: H-5; M-0; L-0; I-0

Rationale:

- Exclusion rate 21-24%: unknown how big the 30-32 weeks group recommended for screening that is not captured
- There are a small number of babies that are too sick to be screened at the appropriate time
- Credit is given for screening at whatever gestational age not necessarily when recommended by AAP
- Excludes outborn infants >28 days due to VON eligibility criteria

3. Usability: H-11: M-13: L-1: I-0

(*Meaningful*, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)
3a. Public Reporting: H-2; M-3; L-0; I-0

3b. QI: H-4; M-1; L-0; I-0

Rationale:

- Mainly used for internal QI. Hospital may share their VON data at their discretion.
- The measure is used in California Perinatal Quality Care Collaborative and is reported to the state.
- Questions regarding transition of this measure from registry to wider use limited by registry criteria
- No public reporting known

0483 Proportion of Infants 22 to 29 Weeks Gestation Screened for Retinopathy of Prematurity.

Does not address whether appropriate follow-up was done after screening.

4. Feasibility: H-15; M-9; L-1; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c. Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

4a. Byproduct of Care Processes: H-5; M-0; L-0; I-0

4b. Electronic data sources: H-4; M-1; L-0; I-0

4c. Suscep inaccuracies, consequences: H-3; M-2; L-0; I-0

4d. Data collection strategy: H-5; M-0; L-0; I-0

Rationale:

• Currently used by VON registry participants. Clinical data is submitted to the registry.

Steering Committee Recommendation for Endorsement: Y-23; N-2

Rationale: Appropriate screening for retinopathy allows intervention to optimize vision. Although the data is not publicly available, the majority of hospitals with Level 3 NICUs participate in the VON registry.

Public & Member Comment

Comments included:

- A commenter raised concerns noting that their internal data (submitted for publication) does not support the added measurement burden.
- Another commenter requested clarification on the exclusion criteria, stating that the exclusions "Outborn infants admitted to the reporting hospital more than 28 days after birth" and "Outborn infants who have been home prior to admission" do not appear aligned

Steering Committee: The Committee agreed the data mentioned by the commenter should be reviewed after it is published, and that it should be taken into consideration during annual updates or maintenance review. The Committee also noted that some high-performing hospitals may have very little room for improvement but the Vermont Oxford Network (VON) data indicates that more than 23% percent of infants at 29 weeks gestation are not screened before hospital discharge. The developer clarified the exclusions, explaining that they pertain to VON's data collection criteria. The Committee did not change their recommendation of the measure.