Geriatrics and Palliative Care, Fall 2018 Cycle: CDP Report

TECHNICAL REPORT

August 16, 2019

NATIONAL QUALITY FORUM

Contents

Geriatrics and Palliative Care, Fall 2018 Cycle

TECHNICAL REPORT

Executive Summary

Improving the quality of palliative and end-of-life care is becoming increasingly important due to several factors such as the aging of the U.S. population; the projected increases in the number of Americans with chronic illnesses, disabilities, and functional limitations; and increases in ethnic and cultural diversity, which have intensified the need for individualized, person-centered care. To date, the National Quality Forum (NQF) has endorsed more than 30 measures in this topic area. These measures address physical, spiritual, psychological, cultural, and legal aspects of care, as well as the care of the patient nearing the end of life.

In 2017, NQF expanded the scope of the Standing Committee charged with the oversight of NQF's portfolio of palliative and end-of-life care measures by adding measures specifically relevant to the geriatric population. This renamed "Geriatrics and Palliative Care Standing Committee" has the requisite expertise to evaluate and assume oversight of measures that focus on key issues specific to older adults.

For this project, the Geriatrics and Palliative Care Standing Committee evaluated five geriatrics measures undergoing maintenance review against NQF's standard evaluation criteria and recommended all five measures for endorsement. The Consensus Standards Approval Committee (CSAC) upheld the Committee's decision to recommend all five measures for endorsement. The five endorsed measures are:

- 0167 Improvement in Ambulation/Locomotion
- 0174 Improvement in Bathing
- 0175 Improvement in Bed Transferring
- 0176 Improvement in Management of Oral Medications
- 0177 Improvement in Pain Interfering with Activity

The body of this report summarizes the measures currently under evaluation; Appendix A provides detailed summaries of the Committee's discussion and ratings of the criteria for each measure.

Introduction

Since 2006, when it first developed a measurement framework for palliative and end-of-life care and endorsed 38 evidence-based preferred practices for high-quality palliative care programs,[1] NQF has endorsed more than 30 measures in this topic area, many of which are used in federal quality improvement and public reporting programs. Improving the quality of palliative and end-of-life care is becoming increasingly important due to the aging U.S. population; the projected increases in the number of Americans with chronic illnesses, disabilities, and functional limitations; and increases in ethnic and cultural diversity, which have intensified the need for individualized, person-centered care.[2]

Palliative care is patient- and family-centered care that optimizes quality of life by anticipating, preventing, and alleviating suffering throughout the continuum of a person's illness by addressing physical, intellectual, emotional, social, and spiritual needs and facilitating patient autonomy, access to information, and choice.[3] Palliative care is holistic, thus requiring an interdisciplinary, team-based approach to care. With its focus on improving quality of life, palliative care is distinct from care intended to cure an illness or condition, although it can be delivered concurrently with curative therapies, and can begin at any point in the disease progression. It can be provided in any setting, including outpatient care settings and at home. Although palliative care is still provided primarily by specially trained teams of professionals in hospitals and through hospice, there is increased focus on provision of palliative care in the community,[4] often by clinicians who are not palliative care specialists.

Palliative care is appropriate for those who are expected to recover, as well as for those who have chronic, progressive, and/or terminal illness. For those with a terminal illness, high-quality end-of-life care is comprehensive care that addresses medical, emotional, spiritual, and social needs during the last stages of illness.[5] Much end-of-life care is palliative, when life-prolonging interventions are no longer appropriate, effective, or desired.[6] Thus, for patients nearing the end of life, there will often be a greater emphasis on palliative care over curative treatment. In many instances, this care is provided in the form of hospice.

Hospice is a service delivery system that relies on an interdisciplinary approach that emphasizes symptom management for patients near the end of life. While hospice care is covered through Medicaid and most private insurance plans, approximately 85 percent of hospice enrollees receive coverage through the Medicare hospice benefit.[7] Beginning in 2014, Medicare-certified hospices were required to report performance on quality measures as part of the Hospice Quality Reporting Program; those not reporting face a reduction in payments from Medicare. Performance rates for these measures are publicly reported on the Centers for Medicare and Medicaid Services (CMS) Hospice Compare website.[8]

Expanding to Geriatrics

In 2017, NQF expanded the scope of the Standing Committee charged with the oversight of the palliative and end-of-life care measures portfolio by adding measures specifically relevant to older adults (i.e., the geriatric population). Because several of its members are geriatric healthcare professionals, this renamed "Geriatrics and Palliative Care Standing Committee" has the requisite expertise to assume oversight of measures that focus on key issues specific to older adults, such as multimorbidity and frailty. At present, such measures remain aspirational. Thus, for the time-being, this

Committee will evaluate setting-specific measures that primarily affect older individuals and are not more suited to other topic-based committees (e.g., measures that assess care provided by home health agencies, nursing facilities, or other home-based care providers).

NQF Portfolio of Performance Measures for Geriatrics and Palliative Care

The Geriatrics and Palliative Care Standing Committee (Appendix C) oversees NQF's portfolio of Geriatrics and Palliative Care measures (Appendix B). This portfolio contains 38 measures: 16 process measures, 21 outcome and resource use measures, and one composite measure (see table below).

Table 1. NQF Geriatrics and Palliative Care Portfolio of Measures

	Process	Outcome/ Resource Use	Composite
Palliative/End-of-Life Care			
Physical Aspects of Care	9	4	–
Psychological and Psychiatric Aspects of Care	–	–	–
Social Aspects of Care	–	–	–
Spiritual, Religious, and Existential Aspects of Care	1	–	–
Cultural Aspects of Care	–	1	–
Care of the Patient Nearing the End of Life	3	11	1
Ethical and Legal Aspects of Care	3	–	–
Geriatrics	–	5	–
Total	16	21	1

Some of the measures in the Geriatrics and Palliative Care portfolio will be evaluated by other NQF Standing Committees. These include a cultural communication measure (Patient Experience and Function Committee), and pain measures for cancer patients (Cancer Committee).

Geriatrics and Palliative Care Measure Evaluation

On February 7 and 19, 2019, the Geriatrics and Palliative Care Standing Committee evaluated five measures undergoing maintenance review against NQF's standard evaluation criteria.

Table 2. Geriatrics and Palliative Care Measure Evaluation Summary

	Maintenance	New	Total
Measures under consideration	5	0	5
Measures endorsed	5	0	5

During the first web meeting, the Committee began its evaluation of measure 0167, and voted on the two subcriteria under Importance to Measure and Report (i.e., Evidence and Opportunity for Improvement). However, there was insufficient time to finish the evaluation of the measure. During the second web meeting, the quorum required for voting was not achieved. Therefore, the Committee

discussed all relevant criteria and voted after the meeting using an online voting tool. NQF provided Committee members who were absent during the web meetings with recordings of both meetings prior to asking for their vote.

Comments Received Prior to Committee Evaluation

NQF solicits comments on endorsed measures on an ongoing basis through the [Quality Positioning System (QPS)](#). In addition, NQF solicits comments for a continuous 16-week period during each evaluation cycle via an online tool located on the project webpage. For this evaluation cycle, the pre-evaluation commenting period opened on December 11, 2018 and closed on April 19, 2019. NQF did not receive any comments on the measures during this period.

Comments Received After Committee Evaluation

The continuous 16-week public commenting period with NQF member support closed on April 19, 2019. Following the Committee's evaluation of the measures under consideration, NQF received 15 comments from three NQF member organizations and individuals pertaining to the draft report and to the measures under consideration. All comments for each measure under consideration have been summarized in [Appendix A](#). Comments included support for the measures, concern about potential for denying access to care for patients who are not likely to improve, the need for skilled services even for patients who are not likely to improve, and suggestions for future measure development.

Throughout the 16-week continuous public commenting period, NQF members had the opportunity to express their support ("support" or "do not support") for each measure submitted for endorsement consideration to inform the Committee's recommendations. One NQF member provided an expression of support for measure 0177 *Improvement in Pain Interfering with Activity*.

Overarching Issues

During the Standing Committee's discussion of the measures, two overarching issues emerged that were factored into the Committee's ratings and recommendations for the five measures that were evaluated. These are not repeated in detail with each individual measure.

Measuring Improvement versus Maintenance of Function

For measures 0167, 0174, and 0175, particularly (i.e., improvement in ambulation/locomotion, bathing, and bed transferring, respectively), the Committee questioned why the measures focus on improvement in function rather than maintenance of function. Referring to the Jimmo v. Sebelius settlement, which prohibits CMS from requiring improvement in function as a condition of home health coverage, the Committee questioned whether agencies that do well in helping their patients maintain function might be unfairly penalized, given that many patients may have little potential for improvement.[9] Committee members also expressed concern that by endorsing a measure that evaluates improvement, home health agencies may be more likely to deny access to patients who require services to maintain or prevent further deterioration of function but have no realistic potential to improve (a concern shared by the Committee that evaluated these measures in 2015).

In responding to these concerns, the developer explained that these measures assess the observed score for each patient episode relative to what is predicted at the start of the episode. The predicted value is risk-adjusted to account for patient factors that influence the likelihood for improvement. This explanation, along with the comprehensive risk-adjustment approach applied to the measures, assuaged the concerns of the Committee regarding validity and potential unintended consequences.

Exclusion of Those Who Transfer or Die

All five measures evaluated in this cycle exclude patients who are transferred or who die (i.e., those who are not discharged from the home health agency). The Committee questioned whether excluding those patients would bias results for agencies with a disproportionate number of patients who are less likely to improve (e.g., agencies that work more closely with hospices that are delivering outpatient palliative care to a frail at-home population, a delivery approach that is becoming more prevalent). The developer clarified that the relevant item from the Outcome and Assessment Information Set (OASIS) assessment is completed only at the start of care, resumption of care, or when a patient is discharged from the agency. Thus, for patients who die or who are transferred to an inpatient facility (but who do not resume home health services), the relevant items are not completed, and the measures cannot be calculated. Committee members acknowledged the limitation of the data collection approach that necessitates the exclusion for transfer and death, as well as the comprehensive risk-adjustment approach for the measures that should help ameliorate the risk of bias.

Summary of Measure Evaluation

The following brief summaries of the measure evaluation highlight the major issues that the Committee considered. Details of the Committee's discussion and ratings of the criteria for each measure are included in [Appendix A](#).

0167 Improvement in Ambulation/Locomotion (Centers for Medicare & Medicaid Services): Endorsed
Description: Percentage of home health episodes of care during which the patient improved in ability to ambulate; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Home Care; **Data Source**: Electronic Health Data

The ability of patients to walk or move around safely contributes to quality of life and allows them to remain in their home environment rather than moving to a facility. This measure, which was originally endorsed in 2009, addresses improvement in activities of daily living (ADLs) for home health patients by assessing improvement in patients' ability to ambulate.

The Committee agreed that there is evidence of at least one healthcare intervention (e.g., exercise programs, balance and coordination training, virtual reality games, and cognitive training) that can influence the outcome of improvement in ambulation/locomotion. Calendar year data from 2016 indicate an average performance rate of 66.1 percent for home health agencies, and possible disparities in care for nonwhite, younger, and lower-income patients. The Committee noted the Scientific Methods Panel's rating of "Moderate" for both reliability and validity. In addition, members discussed the measure's focus on improvement versus maintenance of function, as well as the decision to exclude patients who transfer or die. Ultimately, the Committee agreed that the measure meets NQF's criteria

for reliability and validity. The Committee noted that the data for this measure are routinely collected during the home health episode of care via the OASIS assessment and thus had no concerns regarding feasibility. This measure is publicly reported on Home Health Compare and is included in the Home Health Star Ratings program and the Home Health Value Based Purchasing (HHVBP) program. During the discussion on the usability of the measure, members voiced concern that home health agencies may deny access to patients who are less likely to improve; however, the Committee agreed that the measure's risk-adjustment approach should address this potential unintended consequence.

NQF received two comments on this measure. One commenter explicitly supported the measure, but both commenters reiterated the Committee's concerns about inclusion of patients who are not likely to improve. One commenter asked that NQF clarify, to home health agencies, that denial of access to patients for whom improvement is not expected is not required to do well on the measure. The other commenter noted that skilled services, including occupational therapy, may be necessary and/or helpful, even for patients who are not likely to improve (i.e., to help maintain function). The Committee agreed that denial of access to home health services is not necessary for good performance on the measure and that skilled services, including occupational therapy, may be needed and beneficial for patients for whom improvement in ADLs or instrumental activities of daily living (IADLs) is not expected. The Committee reiterated its agreement that the construct of the measure, including the comprehensive risk-adjustment approach, allows a fair assessment of home health agency performance, even though the measure includes patients who may not be likely to improve.

0174 Improvement in Bathing (Centers for Medicare & Medicaid Services): Endorsed

Description: Percentage of home health episodes of care during which the patient got better at bathing self; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Home Care; **Data Source**: Electronic Health Data

Recovering independence in bathing is often a rehabilitative goal for home health patients, contributing to patient comfort, hygiene, skin integrity, quality of life and allowing them to live longer in their home environment. This measure, which was originally endorsed in 2009, addresses ADLs for home health patients by assessing improvement in patients' ability to bathe themselves.

The Committee agreed that there is evidence of at least one healthcare intervention (e.g., teaching and support of patients and caregivers, environmental modifications, teaching use of assistive equipment, and strategies to mitigate associated pain and fatigue) that can influence the outcome of improvement in bathing. Calendar year data from 2016 indicate an average performance rate of 67.6 percent for home health agencies, and possible disparities in care for nonwhite, younger, and lower-income patients, as well as those living in the Western United States. The Committee noted the Scientific Methods Panel's rating of "Moderate" for both reliability and validity. They also noted that the same concerns voiced for measure 0167 (i.e., regarding the focus on improvement and the exclusion of patients who transfer or die) also apply to this measure. Ultimately, the Committee agreed that the measure meets NQF's criteria for reliability and validity. The Committee noted that the data for this measure are routinely collected during the home health episode of care via the OASIS assessment and thus had no concerns regarding feasibility. This measure is publicly reported on Home Health Compare

and is included in the Home Health Star Ratings program and the HHVBP. The Committee noted that the concern regarding potential denial of access, discussed for measure 0167, also applies to this measure.

NQF received two comments on this measure. One commenter explicitly supported the measure, but both commenters reiterated the Committee's concerns about inclusion of patients who are not likely to improve. One commenter asked that NQF clarify to home health agencies that denial of access to patients for whom improvement is not expected is not required to do well on the measure. The other commenter noted that skilled services, including occupational therapy, may be necessary and/or helpful, even for patients who are not likely to improve (i.e., to help maintain function). The Committee agreed that denial of access to home health services is not necessary for good performance on the measure and that skilled services, including occupational therapy, may be needed and beneficial for patients for whom improvement in ADLs or IADLs is not expected. The Committee reiterated its agreement that the construct of the measure, including the comprehensive risk-adjustment approach, allows a fair assessment of home health agency performance, even though the measure includes patients who may not be likely to improve.

0175 Improvement in Bed Transferring (Centers for Medicare & Medicaid Services): Endorsed

Description: Percentage of home health episodes of care during which the patient improved in ability to get in and out of bed; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Home Care; **Data Source**: Electronic Health Records

Recovering independence in bed transferring is often a rehabilitative goal for home health patients, contributing to improved quality of life and allowing them to live as long as possible in their home environment. This measure, which was originally endorsed in 2009, addresses ADLs for home health patients by assessing improvement in patients' ability to get in and out of bed.

The Committee agreed that there is evidence of at least one healthcare intervention (e.g., physical therapy, occupational therapy aimed at physical exercise, and behavioral interventions) that can influence the outcome of improvement in bed transferring. Calendar year data from 2016 indicate an average performance rate of 61.3 percent for home health agencies, and possible disparities in care for nonwhite, younger, and lower-income patients, as well as those living in the Western United States. The Committee noted the Scientific Methods Panel's rating of "Moderate" for both reliability and validity. They also noted that the same concerns voiced for measure 0167 (i.e., regarding the focus on improvement and the exclusion of patients who transfer or die) also apply to this measure. Ultimately, the Committee agreed that the measure meets NQF's criteria for reliability and validity. The Committee noted that the data for this measure are routinely collected during the home health episode of care via the OASIS assessment and thus had no concerns regarding feasibility. This measure is publicly reported on Home Health Compare and is included in the Home Health Star Ratings program and the HHVBP. The Committee noted that the concern regarding potential denial of access, discussed for measure 0167, also applies to this measure.

NQF received two comments on this measure. One commenter explicitly supported the measure, but both commenters reiterated the Committee's concerns about inclusion of patients who are not likely to improve. One commenter asked that NQF clarify to home health agencies that denial of access to

patients for whom improvement is not expected is not required to do well on the measure.   The other commenter noted that skilled services, including occupational therapy, may be necessary and/or helpful, even for patients who are not likely to improve (i.e., to help maintain function). The Committee agreed that denial of access to home health services is not necessary for good performance on the measure and that skilled services, including occupational therapy, may be needed and beneficial for patients for whom improvement in ADLs or IADLs is not expected. The Committee reiterated its agreement that the construct of the measure, including the comprehensive risk-adjustment approach, allows a fair assessment of home health agency performance, even though the measure includes patients who may not be likely to improve.

0176 Improvement in Management of Oral Medications (Centers for Medicare & Medicaid Services): Endorsed

Description: The percentage of home health episodes of care during which the patient improved in ability to take their medicines correctly, by mouth; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Home Care; **Data Source**: Electronic Health Data

A person's ability to independently manage oral medications reliably and safely is an important factor in patient safety, the effectiveness of the patient's treatment regimen, and health-related outcomes. This measure, which was originally endorsed in 2009, addresses ADLs for home health patients by assessing improvement in patients' abilities to manage their oral medications.

The Committee agreed that there is evidence of at least one healthcare intervention (e.g., use of reminder strategies; phone follow-up; repetition of medication education during the home health episode of care; and use of medication simplification strategies for patients taking multiple medications) that can influence the outcome of improvement in oral medication management. Calendar year data from 2016 indicate an average performance rate of 54.3 percent for home health agencies, and possible disparities in care for nonwhite, younger, and lower-income patients, as well as those living in the Western U.S. The Committee noted the Scientific Methods Panel's rating of "Moderate" for both reliability and validity. They also noted that the same concerns voiced for measure 0167 (i.e., regarding the focus on improvement and the exclusion of patients who transfer or die) also apply to this measure. Ultimately, the Committee agreed that the measure meets NQF's criteria for reliability and validity. The Committee noted that the data for this measure are routinely collected during the home health episode of care via the OASIS assessment and thus had no concerns regarding feasibility. This measure is publicly reported on Home Health Compare and is included in the Home Health Star Ratings program, the HHQRP, and the HHVBP. The Committee noted that the concern regarding potential denial of access, discussed for measure 0167, also applies to this measure.

NQF received two comments on this measure. One commenter explicitly supported the measure, but both commenters reiterated the Committee's concerns about inclusion of patients who are not likely to improve. One commenter asked that NQF clarify to home health agencies that denial of access to patients for whom improvement is not expected is not required to do well on the measure.   The other commenter noted that skilled services, including occupational therapy, may be necessary and/or helpful, even for patients who are not likely to improve (i.e., to help maintain function). The Committee agreed that denial of access to home health services is not necessary for good performance on the

measure and that skilled services, including occupational therapy, may be needed and beneficial for patients for whom improvement in ADLs or IADLs is not expected. The Committee reiterated its agreement that the construct of the measure, including the comprehensive risk-adjustment approach, allows a fair assessment of home health agency performance, even though the measure includes patients who may not be likely to improve.

0177 Improvement in Pain Interfering with Activity (Centers for Medicare & Medicaid Services): Endorsed

Description: The percentage of home health episodes of care during which the frequency of the patient's pain when moving around improved; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Home Care; **Data Source**: Electronic Health Data

Many patients who receive home healthcare experience pain, which can have an adverse impact on a wide range of outcomes including functional capacity, quality of life, and mortality. This measure, which was originally endorsed in 2009, assesses the improvement of a patient's pain when moving around or with activity.

The Committee agreed that there is evidence of at least one healthcare intervention (e.g., nonpharmacological interventions such as chair yoga) that may have a positive effect on pain management. Calendar year data from 2016 indicate an average performance rate of 67.7 percent for home health agencies, and possible disparities in care for those younger than 65 years. The Committee noted the Scientific Methods Panel's rating of "Moderate" for both reliability and validity. They also noted that the same concerns voiced for measure 0167 (i.e., regarding the focus on improvement and the exclusion of patients who transfer or die) also apply to this measure. Ultimately, the Committee agreed that the measure meets NQF's criteria for reliability and validity. The Committee noted that the data for this measure are routinely collected during the home health episode of care via the OASIS assessment and thus had no concerns regarding feasibility. This measure is publicly reported on Home Health Compare and is included in the Home Health Star Ratings program, the HHQRP, and the HHVBP. The Committee noted that the concern regarding potential denial of access, discussed for measure 0167, also applies to this measure. Additionally, Committee members expressed concern over potential unintended consequences due to recent initiatives addressing the opioid epidemic (specifically, that home health agencies may reduce or remove needed pain medications). To address this concern, a Centers for Medicare & Medicaid Services (CMS) representative stated that CMS continually monitors the performance of this measure to ensure that the progress made since 2010 is maintained.

NQF received two comments on this measure, as well as an expression of support by one NQF member. Both commenters explicitly supported the measure, although one reiterated the Committee's concerns about inclusion of patients who are not likely to improve. That commenter asked that NQF clarify to home health agencies that denial of access to patients for whom improvement is not expected is not required to do well on the measure. That commenter also noted that opioids are appropriate medications for many people receiving palliative care or geriatric care in the home setting, and therefore, they are less concerned that this measure promotes the use of opioids. The Committee agreed that denial of access to home health services is not necessary for good performance on the measure. The Committee reiterated its agreement that the construct of the measure, including the

comprehensive risk-adjustment approach, allows a fair assessment of home health agency performance, even though the measure includes patients who may not be likely to improve.

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Appendix A: Details of Measure Evaluation

Rating Scale: H=High; **M**=Moderate; **L**=Low; **I**=Insufficient; **NA**=Not Applicable

Measures Endorsed

0167 Improvement in Ambulation/locomotion

Submission **|** Specifications

Description: Percentage of home health episodes of care during which the patient improved in ability to ambulate.

Numerator Statement: Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in ambulation locomotion at discharge than at start (or resumption) of care.

Denominator Statement: Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.

Exclusions: All home health episodes where the value recorded for the OASIS-C2 item M1860 ("Ambulation/Locomotion") on the start (or the resumption) of care assessment indicates minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or the episode is covered by the generic exclusions.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

Setting of Care: Home Care

Type of Measure: Outcome

Data Source: Electronic Health Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 2/7/2019 and 2/19/2019

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

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

1a. Evidence: **Pass**; the Committee accepted the "Pass" rating from the previous evaluation of the measure. 1b. Performance Gap: **H-13**; **M-4**; **L-0**; **I-0**

Rationale:

- For the 2015 endorsement evaluation, the developer cited literature linking home health interventions to improvement in mobility and functional ability. For the current evaluation, the developer provided additional literature that supports the association between rehabilitation interventions and improvement in mobility. This literature suggests that exercise programs, balance and coordination training, virtual reality games, and cognitive training directly or indirectly improve patients' mobility.
- The Committee agreed that there is evidence of at least one healthcare intervention that can influence the outcome of improvement in ambulation/locomotion and agreed to accept the "Pass" rating from the previous evaluation of the measure.

- Data presented by the developer for 2016 indicate an average performance rate of 66.1%, with the 25th percentile=57.4% and the 90th percentile=84.4%. Additional data for 2016 indicate possible disparities in care for non-white, younger, and lower-income patients.

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

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

2a. Reliability: **H-3**; **M-15**; **L-0**; **I-0** 2b. Validity: **H-2**; **M-16**; **L-0**; **I-0**

Rationale:

- The developer conducted data element reliability testing by assessing the inter-rater reliability between nurses and physical therapists for item M1860 of the OASIS-C2 item set. For this analysis, they calculated a linear weighted kappa statistic using 2016-2017 data from 12 home health agencies in 4 states [kappa=0.43 for n=105 patients at start of care/resumption of care; kappa=0.67 for n=83 patients at discharge].
- The developer used two approaches to assess reliability of the measure score: a signal-to-noise analysis using the Adams beta-binomial method (mean=0.91; minimum=0.61) and a split-sample analysis (IRR(2,1)= 0.865; IRR(3,1)= 0.865) for agencies with ≥40 qualifying episodes.
- The developer conducted a construct validation analysis of the measure score by correlating the results of this measure with four other OASIS performance measures (improvement in bathing, bed transfer, and pain interfering with activity, and management of oral medications) and a modified version of the Quality of Patient Care Star Rating measure (modified by excluding the ambulation/locomotion measure from the calculation). Spearman's rank correlation values ranged from 0.61-0.82 for the four OASIS measures and was 0.72 for the modified star-rating measure. These results supported the developer's expectation of statistically significant, positive correlations.
- The measure is risk-adjusted using logistic regression with 120 risk factors (based on 2016 data). Payment source (as a proxy for dual-eligibility) is included in the risk-adjustment approach, but not rurality. The developer assessed model discrimination via the c-statistic (c-statistic=0.779 for the overall development sample; c-statistic=0.779 for the overall model validation sample). The developer assessed risk-model calibration by calculating McFadden's R^2 and developing risk-decile plots (McFadden's R^2=0.174 for the overall development sample; McFadden's R^2=0.167 for the overall model validation sample).
- Committee members noted that NQF's Scientific Methods Panel evaluated reliability and validity and rated both as "Moderate."
- In their discussion of the measure, the Committee requested clarification about how improvement is defined and what is included as part of the "generic" exclusions that are applied to the measure. The developer clarified that the relevant OASIS item (M1860) assesses how much assistance is needed to ambulate; any "moving up" on the scale (i.e., to require less assistance than at start or resumption of care) is considered improvement.
- Committee members also questioned whether excluding patients who are transferred or who die bias results for agencies with a disproportionate number of patients who are less likely to improve.
  The developer explained that the relevant OASIS item is not collected for patients who are transferred or who die. Committee members acknowledged the limitation of the data collection approach that necessitates the exclusion for transfer and death, as well as the comprehensive risk-adjustment approach that should help ameliorate the risk of bias.

- The Committee asked about the differences in the inter-rater reliability values at start of care versus discharge (kappa=0.43 vs. 0.67, respectively). The developer suggested that higher values at discharge might be expected because agency staff doing the assessment are often more familiar with patients by time of discharge.
- Finally, Committee members expressed concern regarding the focus on improvement in function rather than on maintenance of function. They questioned whether agencies that do well in helping their patients maintain function might be unfairly penalized, given that many patients may have little potential for improvement. The developer noted that other measures derived from the OASIS instrument assess stability in function, then explained that this measure assesses the observed score for each patient episode relative to what is predicted at the start of the episode. They also reminded the Committee that the measure is risk-adjusted to account for patient factors that influence the likelihood for improvement. This explanation, along with the comprehensive risk-adjustment approach applied to the measure, assuaged the concerns of the Committee regarding validity.

3. Feasibility: H-13; M-5; L-0; I-0

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

Rationale:

- The Committee noted that the data for this measure are routinely collected during the home health episode of care via the OASIS assessment. The collection and electronic transmission of OASIS is a requirement for the Medicare Home Health Conditions of Participation.

4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Pass-18; No Pass-0** *4b. Usability:* **H-7; M-11; L-0; I-0**

Rationale:

- This measure currently is used in the Home Health Star Ratings program and the Home Health Value Based Purchasing (HHVBP) program; also, it is publicly reported on Home Health Compare. At the time of submission, this measure was included in the Home Health Quality Reporting Program (HHQRP).
- During the discussion on Usability, one Committee member expressed concern that home health agencies may deny access to patients who are less likely to improve, but instead require services to maintain or prevent further deterioration of function. However, the developer's explanation regarding the measure construction (described above, under Scientific Acceptability), along with the comprehensive risk-adjustment approach applied to the measure, eased the concerns of the Committee regarding this potential unintended consequence.
- Another Committee member questioned whether patients might be harmed (e.g., caused pain) if an agency tries to force therapy for those who are not expected to improve. However, other members did not share this concern.

5. Related and Competing Measures

- This measure is related to:
    - o 2287: Functional Change: Change in Motor Score
    - o 2321: Functional Change: Change in Mobility Score
    - o 2632: Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support
    - o 2634: Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients
    - o 2774: Functional Change: Change in Mobility Score for Skilled Nursing Facilities
    - o 2775: Functional Change: Change in Motor Score for Skilled Nursing Facilities
    - o 2776: Functional Change: Change in Motor Score in Long Term Acute Care Facilities
    - o 2778: Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
    - o 2612: CARE: Improvement in Mobility
    - o 2613: CARE: Improvement in Self Care
- During the post comment call on May 13, 2019, CMS representatives provided an informational update on how these measures work together to address provisions of the Improving Medicare Post-Acute Care Transformation (IMPACT) Act. Due to differences in care settings and data collection instruments, these measures are harmonized to the extent possible.

6. Standing Committee Recommendation for Endorsement: **Y-18**; **N-0**

7. Public and Member Comment

NQF received two post-evaluation comments on this measure. One commenter explicitly supported the measure, but both commenters reiterated the committee's concerns about inclusion of patients who are not likely to improve.

- C-TAC [Coalition to Transform Advanced Care] supports this measure but shares the concern that it may discourage home health agencies from providing care for those with advanced illness who are unlikely to show improvement on this measure. While reassurance has been provided that that will not be the case, we are concerned that such a nuance may be lost at the local care level and urge NQF to make this issue clear in the background on the measure going forward.
- We [American Occupational Therapy Association (AOTA)] appreciate that measures 167, 174, 175, and 176 include extensive risk adjustment to mitigate complexities and comorbidities that may influence beneficiaries' improvement on each measure. However, we have some concern that the measure may capture beneficiaries for which improvement is not expected. Skilled services, including occupational therapy, may be medically necessary and provided to beneficiaries who are not anticipated to make functional improvements, but require evaluation and intervention to maintain function and remain in the community and avoid costlier care in institutions.

NQF asked the developer to respond to AOTA's comment. Developer Response:

- Thank you for your comments. We understand your concern regarding patients who remain on home health to maintain or prevent further deterioration, with no realistic potential to improve.

We understand from clinicians that there are multiple interventions that may result in some improvement, even for patients who are far from independent, such as providing an assistive device, or modifications to the home environment. We do not want to inadvertently disincentivize agencies from seeking these solutions by excluding patients that appear to be unlikely to improve from the measures' denominators. Instead, your comments underscore the importance of a robust risk adjustment model, as we have, that incorporates patient factors indicating less likely improvement. We also note that these measures are a subset of the home health quality measure set; others in the measure set may more appropriately address patients for whom improvement is unlikely. Finally, we will continue to monitor these measures, the HHAs' performance, and seek input on improvements either to this measure and other measures relevant to home health patients for whom improvement is not expected.

8. Consensus Standards Approval Committee (CSAC) Vote: Y-14; N-0 (June 5, 2019: Approved for endorsement)

- CSAC upheld the Committee's decision to recommend the measure for endorsement.

9. Appeals

No appeals were received.

0174 Improvement in Bathing

Submission **|** Specifications

Description: Percentage of home health episodes of care during which the patient got better at bathing self.

Numerator Statement: Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in bathing at discharge than at start (or resumption) of care.

Denominator Statement: All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in bathing (i.e., were not at the optimal level of health status according to the "Bathing" OASIS-C2 item M1830).

Exclusions: All home health episodes where at the start (or resumption) of care assessment the patient had minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or was covered by the generic exclusions.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

Setting of Care: Home Care

Type of Measure: Outcome

Data Source: Electronic Health Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 2/19/2019

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

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

1a. Evidence: **Y-18; N-0** 1b. Performance Gap: **H-9**; **M-8**; **L-1**; **I-0;**

<u>Rationale</u>:

- For the 2015 endorsement evaluation, the developer cited literature linking home health interventions to improvement in bathing (e.g., teaching and support of patients and caregivers, environmental modifications, teaching use of assistive equipment, and strategies to mitigate associated pain and fatigue). For the current evaluation, the developer cited literature regarding home-based occupational therapy targeted at physical exercise capacity of frail, older community-dwelling adults, but provided no additional literature to demonstrate the link between healthcare interventions and improvement in bathing.
- The Committee referenced a newly-released study that does demonstrate a link between home health care and improvements in bathing: Rod Morgan & Rosanne DiZazzo-Miller (2019). The Occupation-Based Intervention of Bathing: Cases in Home Health Care, Occupational Therapy in Health Care (DOI: 10.1080/07380577.2018.1504368).
- Data presented by the developer for 2016 indicate an average performance rate of 67.6%, with the 25th percentile=59.0% and the 90th percentile=88.2%. Additional data for 2016 indicate possible disparities in care for non-white, younger, and lower-income patients, as well as those living in the Western U.S.

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2. Scientific Acceptability of Measure Properties: <u>**The measure meets the Scientific Acceptability criteria**</u>

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

2a. Reliability: **H-3; M-15; L-0; I-0** 2b. Validity: **H-2; M-16; L-0; I-0**

<u>Rationale</u>:

- The developer conducted data element reliability testing by assessing the inter-rater reliability between nurses and physical therapists for item M1830 of the OASIS-C2 item set. For this analysis, they calculated a linear weighted kappa statistic using 2016-2017 data from 12 home health agencies in 4 states [kappa=0.51 for n=104 patients at start of care/resumption of care; kappa=0.43 for n=83 patients at discharge].
- The developer used two approaches to assess reliability of the measure score: a signal-to-noise analysis using the Adams beta-binomial method (mean=0.93; minimum=0.64) and a split-sample analysis (IRR(2,1)= 0.89; IRR(3,1)= 0.89) for agencies with ≥40 qualifying episodes.
- The developer conducted a construct validation analysis of the measure score by correlating the results of this measure with four other OASIS performance measures (improvement in ambulation/locomotion, bed transfer, and pain interfering with activity, and management of oral medications) and a modified version of the Quality of Patient Care Star Rating measure (modified by excluding the bathing measure from the calculation). Spearman's rank correlation values ranged from 0. 68-0.82 for the four OASIS measures and was 0.76 for the modified star-rating measure. These results supported the developer's expectation of statistically significant, positive correlations.
- The measure is risk-adjusted using logistic regression with 120 risk factors (based on 2016 data). Payment source (as a proxy for dual-eligibility) is included in the risk-adjustment approach, but not rurality. The developer assessed model discrimination via the c-statistic (c-statistic=0.76 for the overall development sample; c-statistic=0.76 for the overall model validation sample). The

developer assessed risk-model calibration by calculating McFadden's R^2 and developing risk-decile plots (McFadden's R^2=0.152 for the overall development sample; McFadden's R^2=0.147 for the overall model validation sample).

- The Committee again pointed out the differences in the inter-rater reliability values at start of care versus discharge (kappa=0.51 vs. 0.43, respectively), noting that this time, the agreement was weaker at time of discharge. This finding calls into question the developer's expectation of higher values at discharge (stated in the discussion of measure #0167).
- Committee members noted that NQF's Scientific Methods Panel evaluated reliability and validity and rated both as "Moderate." They also noted that the same concerns voiced for measure #0167 (i.e., regarding the focus on improvement and the exclusion of patients who transfer or die) also apply to this measure. They did not express any other concerns regarding reliability or validity.

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3. Feasibility: H-12; M-6; L-0; I-0

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

Rationale:

- The data for this measure are routinely collected during the home health episode of care via the OASIS assessment. The collection and electronic transmission of OASIS is a requirement for the Medicare Home Health Conditions of Participation. Because the feasibility of this measure is identical to that of measure #0167, the Committee did not re-discuss feasibility for this measure.

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4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Pass-18; No Pass-0** *4b. Usability:* **H-6; M-12; L-0; I-0**

Rationale:

- This measure currently is used in the Home Health Star Ratings program and the Home Health Value Based Purchasing (HHVBP) program; also, it is publicly reported on Home Health Compare. At the time of submission, this measure was included in the Home Health Quality Reporting Program (HHQRP).
- The Committee did not raise any new issues regarding the usability of the measure. NOTE that the concern regarding potential denial of access, discussed for measure #0167, also applies to this measure.

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5. Related and Competing Measures

- This measure is related to:
  - 2287: Functional Change: Change in Motor Score
  - 2321: Functional Change: Change in Mobility Score
  - 2632: Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

- o 2634: Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients
  - o 2774: Functional Change: Change in Mobility Score for Skilled Nursing Facilities
  - o 2775: Functional Change: Change in Motor Score for Skilled Nursing Facilities
  - o 2776: Functional Change: Change in Motor Score in Long Term Acute Care Facilities
  - o 2778: Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
  - o 2612: CARE: Improvement in Mobility
  - o 2613: CARE: Improvement in Self Care
- During the post comment call on May 13, 2019, CMS representatives provided an informational update on how these measures work together to address provisions of the IMPACT Act. Due to differences in care settings and data collection instruments, these measures are harmonized to the extent possible

6. Standing Committee Recommendation for Endorsement: **Y-18**; **N-0**

7. Public and Member Comment

NQF received two post-evaluation comments on this measure. One commenter explicitly supported the measure, but both commenters reiterated the committee's concerns about inclusion of patients who are not likely to improve.

- C-TAC [Coalition to Transform Advanced Care] supports this measure but shares the concern that it may discourage home health agencies from providing care for those with advanced illness who are unlikely to show improvement on this measure. While reassurance has been provided that that will not be the case, we are concerned that such a nuance may be lost at the local care level and urge NQF to make this issue clear in the background on the measure going forward.
- We [AOTA] appreciate that measures 167, 174, 175, and 176 include extensive risk adjustment to mitigate complexities and comorbidities that may influence beneficiaries' improvement on each measure. However, we have some concern that the measure may capture beneficiaries for which improvement is not expected. Skilled services, including occupational therapy, may be medically necessary and provided to beneficiaries who are not anticipated to make functional improvements, but require evaluation and intervention to maintain function and remain in the community and avoid costlier care in institutions.

NQF asked the developer to respond to AOTA's comment. Developer Response:

- Thank you for your comments. We understand your concern regarding patients who remain on home health to maintain or prevent further deterioration, with no realistic potential to improve. We understand from clinicians that there are multiple interventions that may result in some improvement, even for patients who are far from independent, such as providing an assistive device, or modifications to the home environment. We do not want to inadvertently disincentivize agencies from seeking these solutions by excluding patients that appear to be unlikely to improve from the measures' denominators. Instead, your comments underscore the importance of a robust risk adjustment model, as we have, that incorporates patient factors indicating less likely improvement. We also note that these measures are a subset of the home

health quality measure set; others in the measure set may more appropriately address patients for whom improvement is unlikely. Finally, we will continue to monitor these measures, the HHAs' performance, and seek input on improvements either to this measure and other measures relevant to home health patients for whom improvement is not expected.

8. Consensus Standards Approval Committee (CSAC) Vote: Y-14; N-0 (June 5, 2019: Approved for endorsement)

- CSAC upheld the Committee's decision to recommend the measure for endorsement.

9. Appeals

No appeals were received.

0175 Improvement in Bed Transferring

Description: Percentage of home health episodes of care during which the patient improved in ability to get in and out of bed.

Numerator Statement: Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in bed transferring at discharge than at start (or resumption) of care.

Denominator Statement: The number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.

Exclusions: All home health episodes where at the start (or resumption) of care assessment the patient is able to transfer independently, or the patient is non-responsive. or the episode of care ended in transfer to inpatient facility or death at home, or the episode is covered by the generic exclusions.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

Setting of Care: Home Care

Type of Measure: Outcome

Data Source: Electronic Health Records

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 2/19/2019

1. Importance to Measure and Report: The measure meets the Importance criteria
(1a. Evidence, 1b. Performance Gap)
1a. Evidence: **Y-18; N-0** 1b. Performance Gap**: H-9; M-9; L-0; I-0;**
Rationale:

- For the 2015 endorsement evaluation, the developer cited literature linking home health services to improvements in functional ability (including transferring), as well as literature linking provision of physical therapy and "behavioral interventions" in the home care setting with improvement in transferring. For the current evaluation, the developer cited additional literature linking various interventions to improvement in transferring, including actions to prevent joint and back pain and occupational therapy aimed at physical exercise.
- Data presented by the developer for 2016 indicate an average performance rate of 61.3%, with the 25th percentile=50.7% and the 90th percentile=80.9%. Additional data for 2016 indicate possible disparities in care for non-white, younger, and lower-income patients, as well as those living in the Western U.S.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

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

2a. Reliability: **H-3; M-15; L-0; I-0** 2b. Validity: **H-2; M-16; L-0; I-0**

<u>Rationale</u>:

- The developer conducted data element reliability testing by assessing the inter-rater reliability between nurses and physical therapists for item M1850 of the OASIS-C2 item set. For this analysis, they calculated a linear weighted kappa statistic using 2016-2017 data from 12 home health agencies in 4 states [kappa=0.42 for n=104 patients at start of care/resumption of care; kappa=0.45 for n=83 patients at discharge].
- The developer used two approaches to assess reliability of the measure score: a signal-to-noise analysis using the Adams beta-binomial method (mean=0.92; minimum=0.65) and a split-sample analysis (IRR(2,1)= 0.89; IRR(3,1)= 0.89) for agencies with ≥40 qualifying episodes.
- The developer conducted a construct validation analysis of the measure score by correlating the results of this measure with four other OASIS performance measures (improvement in ambulation/locomotion, bathing, and pain interfering with activity, and management of oral medications) and a modified version of the Quality of Patient Care Star Rating measure (modified by excluding the bed transferring measure from the calculation). Spearman's rank correlation values ranged from 0.52-0.70 for the four OASIS measures and was 0.65 for the modified star-rating measure. These results supported the developer's expectation of statistically significant, positive correlations.
- The measure is risk-adjusted using logistic regression with 113 risk factors (based on 2016 data). Payment source (as a proxy for dual-eligibility) is included in the risk-adjustment approach, but not rurality. The developer assessed model discrimination via the c-statistic (c-statistic=0.792 for the overall development sample; c-statistic=0. 792 for the overall model validation sample). The developer assessed risk-model calibration by calculating McFadden's R^2 and developing risk-decile plots (McFadden's R^2=0.198 for the overall development sample; McFadden's R^2=0.190 for the overall model validation sample).
- Committee members noted that NQF's Scientific Methods Panel evaluated reliability and validity and rated both as "Moderate." They also noted that the same concerns voiced for measure #0167 (i.e., regarding the focus on improvement and the exclusion of patients who transfer or die) also apply to this measure. They did not express any other concerns regarding reliability or validity.

3. Feasibility: H-13; M-5; L-0; I-0

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

Rationale:

- The data for this measure are routinely collected during the home health episode of care via the OASIS assessment. The collection and electronic transmission of OASIS is a requirement for the Medicare Home Health Conditions of Participation. Because the feasibility of this measure is identical to that of measure #0167, the Committee did not re-discuss feasibility for this measure.

4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Pass-18; No Pass-0** *4b. Usability:* **H-5; M-13; L-0; I-0**

Rationale:

- This measure currently is used in the Home Health Star Ratings program and the Home Health Value Based Purchasing (HHVBP) program; also, it is publicly reported on Home Health Compare. At the time of submission, this measure was included in the Home Health Quality Reporting Program (HHQRP).
- The Committee did not raise any new issues regarding the usability of the measure. NOTE that the concern regarding potential denial of access, discussed for measure #0167, also applies to this measure.

5. Related and Competing Measures

- This measure is related to:
    - 2287: Functional Change: Change in Motor Score
    - 2321: Functional Change: Change in Mobility Score
    - 2632: Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support
    - 2634: Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients
    - 2774: Functional Change: Change in Mobility Score for Skilled Nursing Facilities
    - 2775: Functional Change: Change in Motor Score for Skilled Nursing Facilities
    - 2776: Functional Change: Change in Motor Score in Long Term Acute Care Facilities
    - 2778: Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
    - 2612: CARE: Improvement in Mobility
    - 2613: CARE: Improvement in Self Care
- During the post comment call on May 13, 2019, CMS representatives provided an informational update on how these measures work together to address provisions of the IMPACT Act. Due to differences in care settings and data collection instruments, these measures are harmonized to the extent possible

6. Standing Committee Recommendation for Endorsement: **Y-18**; **N-0**

7. Public and Member Comment

NQF received two post-evaluation comments on this measure. One commenter explicitly supported the measure, but both commenters reiterated the committee's concerns about inclusion of patients who are not likely to improve.

- C-TAC [Coalition to Transform Advanced Care] supports this measure but shares the concern that it may discourage home health agencies from providing care for those with advanced illness who are unlikely to show improvement on this measure. While reassurance has been provided that that will not be the case, we are concerned that such a nuance may be lost at the local care level and urge NQF to make this issue clear in the background on the measure going forward.
- We [AOTA] appreciate that measures 167, 174, 175, and 176 include extensive risk adjustment to mitigate complexities and comorbidities that may influence beneficiaries' improvement on each measure. However, we have some concern that the measure may capture beneficiaries for which improvement is not expected. Skilled services, including occupational therapy, may be medically necessary and provided to beneficiaries who are not anticipated to make functional improvements, but require evaluation and intervention to maintain function and remain in the community and avoid costlier care in institutions.

NQF asked the developer to respond to AOTA's comment. Developer Response:

- Thank you for your comments. We understand your concern regarding patients who remain on home health to maintain or prevent further deterioration, with no realistic potential to improve. We understand from clinicians that there are multiple interventions that may result in some improvement, even for patients who are far from independent, such as providing an assistive device, or modifications to the home environment. We do not want to inadvertently disincentivize agencies from seeking these solutions by excluding patients that appear to be unlikely to improve from the measures' denominators. Instead, your comments underscore the importance of a robust risk adjustment model, as we have, that incorporates patient factors indicating less likely improvement. We also note that these measures are a subset of the home health quality measure set; others in the measure set may more appropriately address patients for whom improvement is unlikely. Finally, we will continue to monitor these measures, the HHAs' performance, and seek input on improvements either to this measure and other measures relevant to home health patients for whom improvement is not expected.

8. Consensus Standards Approval Committee (CSAC) Vote: Y-14; N-0 (June 5, 2019: Approved for endorsement)

- CSAC upheld the Committee's decision to recommend the measure for endorsement.

9. Appeals

No appeals were received.

0176 Improvement in Management of Oral Medications

Submission **|** Specifications

Description: The percentage of home health episodes of care during which the patient improved in ability to take their medicines correctly, by mouth.

Numerator Statement: The number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in taking oral medications at discharge than at start (or resumption) of care.

Denominator Statement: Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.

Exclusions: All home health episodes where at start (or resumption) of care the patient is not taking any oral medications or has minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death, or the episode is covered by the generic exclusions.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

Setting of Care: Home Care

Type of Measure: Outcome

Data Source: Electronic Health Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 2/19/2019

1. Importance to Measure and Report: The measure meets the Importance criteria
(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-18**; **N-0;** 1b. Performance Gap: **H-12; M-6; L-0; I-0**

Rationale:

- For the 2015 endorsement evaluation, the developer cited literature linking home health services to improvements in functional ability (including oral medication management), as well as literature identifying four clinical practices associated with greater improvement in management of oral medications: use of reminder strategies; phone follow-up; repetition of medication education during the home health episode of care; and use of medication simplification strategies for patients taking multiple medications. For the current evaluation, the developer cited a 2017 study of older Korean patients with hypertension that suggests that early detection of depression and improving patient self-efficacy may improve adherence to antihypertensive medication.
- Data presented by the developer for 2016 indicate an average performance rate of 54.3%, with the 25th percentile=43.7% and the 90th percentile=75.6%. Additional data for 2016 indicate possible disparities in care for Hispanics, those younger than 65 and older than 74, those who are not disabled, and lower-income patients, as well as those living in the Southern or Western U.S.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

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

2a. Reliability: **H-2; M-15; L-1; I-0** 2b. Validity: **H-1; M-16; L-1; I-0)**

<u>Rationale</u>:

- The developer conducted data element reliability testing by assessing the inter-rater reliability between nurses and physical therapists for item M2020 of the OASIS-C2 item set. For this analysis, they calculated a linear weighted kappa statistic using 2016-2017 data from 12 home health agencies in 4 states [kappa=0.59 for n=105 patients at start of care/resumption of care; kappa=0.65 for n=84 patients at discharge].

- The developer used two approaches to assess reliability of the measure score: a signal-to-noise analysis using the Adams beta-binomial method (mean=0.92; minimum=0.68) and a split-sample analysis (IRR(2,1)= 0.89; IRR(3,1)= 0.89) for agencies with ≥40 qualifying episodes.

- The developer conducted a construct validation analysis of the measure score by correlating the results of this measure with four other OASIS performance measures (improvement in ambulation/locomotion, bathing, and bed transferring, and pain interfering with activity) and a modified version of the Quality of Patient Care Star Rating measure (modified by excluding the improvement of management of oral medications measure from the calculation). Spearman's rank correlation values ranged from 0. 51-0.68 for the four OASIS measures and was 0.62 for the modified star-rating measure. These results supported the developer's expectation of statistically significant, positive correlations.

- The measure is risk-adjusted using logistic regression with 117 risk factors (based on 2016 data). Payment source (as a proxy for dual-eligibility) is included in the risk-adjustment approach, but not rurality. The developer assessed model discrimination via the c-statistic (c-statistic=0.777 for the overall development sample; c-statistic=0. 777 for the overall model validation sample). The developer assessed risk-model calibration by calculating McFadden's R^2 and developing risk-decile plots (McFadden's R^2=0.182 for the overall development sample; McFadden's R^2=0.179 for the overall model validation sample).

- One committee member questioned how improvement in oral medication management is determined, given that agency staff are not present (in the home) the majority of the time. The developer acknowledged that agency staff may have to infer whether patients' ability to manage their medication has improved because direct observation is not always possible. To make this inference, agency staff can ask patients to describe their medications, how they store them, use them, etc. Another Committee member noted that in her organization, agency staff observe how patients take their medications and may also conduct more objective checks, such as pill counts.

- Committee members noted that NQF's Scientific Methods Panel evaluated reliability and validity and rated both as "Moderate." They also noted that the same concerns voiced for measure #0167 (i.e., regarding the focus on improvement and the exclusion of patients who transfer or die) also apply to this measure. They did not express any other concerns regarding reliability or validity.

3. Feasibility: H-12; M-5; L-1; I-0

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

Rationale:

- Data for this measure are routinely collected during the home health episode of care via the OASIS assessment. The collection and electronic transmission of OASIS is a requirement for the Medicare Home Health Conditions of Participation. Because the feasibility of this measure is identical to that of measure #0167, the Committee did not re-discuss feasibility for this measure.

4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Pass-18; No Pass-0** *4b.* Usability*:* **H-4; M-14; L-0; I-0**

Rationale:

- This measure is publicly reported on Home Health Compare and is used in the Home Health Star Ratings program, the Home Health Quality Reporting Program (HHQRP), and the Home Health Value Based Purchasing (HHVBP) program.
- The Committee did not raise any new issues regarding the usability of the measure. NOTE that the concern regarding potential denial of access, discussed for measure #0167, also applies to this measure.

5. Related and Competing Measures

- No related or competing measures noted.

6. Standing Committee Recommendation for Endorsement: Y-18; N-0

7. Public and Member Comment

NQF received two post-evaluation comments on this measure. One commenter explicitly supported the measure, but both commenters reiterated the committee's concerns about inclusion of patients who are not likely to improve.

- C-TAC [Coalition to Transform Advanced Care] supports this measure but shares the concern that it may discourage home health agencies from providing care for those with advanced illness who are unlikely to show improvement on this measure. While reassurance has been provided that that will not be the case, we are concerned that such a nuance may be lost at the local care level and urge NQF to make this issue clear in the background on the measure going forward.
- We [AOTA] appreciate that measures 167, 174, 175, and 176 include extensive risk adjustment to mitigate complexities and comorbidities that may influence beneficiaries' improvement on each measure. However, we have some concern that the measure may capture beneficiaries for which improvement is not expected. Skilled services, including occupational therapy, may be medically necessary and provided to beneficiaries who are not anticipated to make functional improvements, but require evaluation and intervention to maintain function and remain in the community and avoid costlier care in institutions.

NQF asked the developer to respond to AOTA's comment. Developer Response:
- Thank you for your comments. We understand your concern regarding patients who remain on home health to maintain or prevent further deterioration, with no realistic potential to improve. We understand from clinicians that there are multiple interventions that may result in some improvement, even for patients who are far from independent, such as providing an assistive device, or modifications to the home environment. We do not want to inadvertently disincentivize agencies from seeking these solutions by excluding patients that appear to be unlikely to improve from the measures' denominators. Instead, your comments underscore the importance of a robust risk adjustment model, as we have, that incorporates patient factors indicating less likely improvement. We also note that these measures are a subset of the home health quality measure set; others in the measure set may more appropriately address patients for whom improvement is unlikely. Finally, we will continue to monitor these measures, the HHAs' performance, and seek input on improvements either to this measure and other measures relevant to home health patients for whom improvement is not expected.

8. Consensus Standards Approval Committee (CSAC) Vote: Y-14; N-0 (June 5, 2019: Approved for endorsement)
- CSAC upheld the Committee's decision to recommend the measure for endorsement.

9. Appeals

No appeals were received.

0177 Improvement in Pain Interfering with Activity

Submission **|** Specifications

Description: The percentage of home health episodes of care during which the frequency of the patient's pain when moving around improved.

Numerator Statement: The number of home health episodes of care where the value recorded on the discharge assessment indicates less frequent pain at discharge than at start (or resumption) of care.

Denominator Statement: Number of home heath episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure- specific exclusions.

Exclusions: All home health episodes where there is no pain reported at the start (or resumption) of care assessment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or the episodes is covered by one of the generic exclusions.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

Setting of Care: Home Care

Type of Measure: Outcome

Data Source: Electronic Health Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING 2/19/2019

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

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

1a. Evidence: **Y-18; N-0** 1b. Performance Gap: **H-13**; **M-5**; **L-0**; **I-0;**

<u>Rationale</u>:

- For the 2015 endorsement evaluation, the developer cited literature linking home care home-based palliative care program with reductions in pain, including a small study that found that a particular physical therapy cognitive-behavioral intervention for pain management was effective in relieving pain. For the current evaluation, the developer also cited literature that includes examples of non-pharmacological interventions (e.g., chair yoga) that may have a positive effect on pain management in older adults.
- Data presented by the developer for 2016 indicate an average performance rate of 67.7%, with the 25th percentile=57.7% and the 90th percentile=93.2%. Additional data for 2016 indicate possible disparities in care for those younger than 65.

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2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

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

2a. Reliability: **H-2**; **M-16**; **L-0**; **I-0** 2b. Validity: **H-4**; **M-14**; **L-0**; **I-0**

<u>Rationale</u>:

- The developer conducted data element reliability testing by assessing the inter-rater reliability between nurses and physical therapists for item M1242 of the OASIS-C2 item set. For this analysis, they calculated a linear weighted kappa statistic using 2016-2017 data from 12 home health agencies in 4 states [kappa=0.45 for n=105 patients at start of care/resumption of care; kappa=0.53 for n=84 patients at discharge].
- The developer used two approaches to assess reliability of the measure score: a signal-to-noise analysis using the Adams beta-binomial method (mean=0.95; minimum=0.74) and a split-sample analysis (IRR(2,1)= 0.90; IRR(3,1)= 0.90) for agencies with ≥40 qualifying episodes.
- The developer conducted a construct validation analysis of the measure score by correlating the results of this measure with four other OASIS performance measures (improvement in ambulation/locomotion, bathing, and bed transferring, and management of oral medications) and a presumably-modified version of the Quality of Patient Care Star Rating measure (by excluding the pain measure from the calculation). Spearman's rank correlation values ranged from 0. 51-0.69 for the four OASIS measures and was 0.65 for the modified star-rating measure. These results supported the developer's expectation of statistically significant, positive correlations.
- The measure is risk-adjusted using logistic regression with 114 risk factors (based on 2016 data). Payment source (as a proxy for dual-eligibility) is included in the risk-adjustment approach, but not rurality. The developer assessed model discrimination via the c-statistic (c-statistic=0. 656 for the overall development sample; c-statistic=0. 657 for the overall model validation sample). The developer assessed risk-model calibration by calculating McFadden's R^2 and developing risk-

decile plots (McFadden's R^2=0. 053 for the overall development sample; McFadden's R^2=0. 051 for the overall model validation sample).

- Committee members noted that NQF's Scientific Methods Panel evaluated reliability and validity and rated both as "Moderate." They also noted that the same concerns voiced for measure #0167 (i.e., regarding the focus on improvement and the exclusion of patients who transfer or die) also apply to this measure. They did not express any other concerns regarding reliability or validity.

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3. Feasibility: H-12; M-6; L-0; I-0

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

Rationale:

- The data for this measure are routinely collected during the home health episode of care via the OASIS assessment. The collection and electronic transmission of OASIS is a requirement for the Medicare Home Health Conditions of Participation. Because the feasibility of this measure is identical to that of measure #0167, the Committee did not re-discuss feasibility for this measure.

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4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Pass-18; No Pass-0** *4b. Usability:* **H-7; M-11; L-0; I-0**

Rationale:

- This measure is publicly reported on Home Health Compare and is used in the Home Health Star Ratings program, the Home Health Quality Reporting Program (HHQRP), and the Home Health Value Based Purchasing (HHVBP) program.
- Committee members expressed concern over potential unintended consequences of the measure due to recent initiatives addressing the opioid epidemic (specifically, that home health agencies may reduce or remove needed pain medications). To address this concern, a CMS representative stated that CMS continually monitors the performance of this measure to ensure that the progress made since 2010 is maintained.
- The Committee did not raise any new issues regarding the usability of the measure. NOTE that the concern regarding potential denial of access, discussed for measure #0167, also applies to this measure.

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5. Related and Competing Measures

- This measure is related to:
    - 0209: Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment
- During the post comment call on May 13, 2019, CMS representatives provided an informational update on how the measures under evaluation work together to address provisions of the IMPACT Act.   Due to differences in care settings and data collection instruments, these measures are harmonized to the extent possible.

6. Standing Committee Recommendation for Endorsement: **Y-18**; **N-0**

7. Public and Member Comment

NQF received two post-evaluation comments on this measure, as well as an expression of support by one NQF member. Both commenters explicitly supported the measure, although one reiterated the committee's concerns about inclusion of patients who are not likely to improve.

- C-TAC [Coalition to Transform Advanced Care] supports this measure but shares the concern that it may discourage home health agencies from providing care for those with advanced illness who are unlikely to show improvement on this measure. While reassurance has been provided that that will not be the case, we are concerned that such a nuance may be lost at the local care level and urge NQF to make this issue clear in the background on the measure going forward. We are also less concerned that such a measure promotes the use of opioids as these are appropriate medications for many people receiving palliative care or geriatric care in the home setting.
- AOTA supports pain being measured in relationship to engagement in meaningful activity.

8. Consensus Standards Approval Committee (CSAC) Vote: Y-14; N-0 (June 5, 2019: Approved for endorsement)

- CSAC upheld the Committee's decision to recommend the measure for endorsement.

9. Appeals

No appeals were received.

Appendix B: Geriatrics and Palliative Care Portfolio—Use in Federal Programs[a]

NQF #	Title	Federal Programs: Finalized or Implemented as of May 31, 2019
0167	Improvement in Ambulation and Locomotion	Home Health Value Based Purchasing (Implemented)
0174	Improvement in Bathing	Home Health Value Based Purchasing (Implemented)
0175	Improvement in Bed Transferring	Home Health Value Based Purchasing (Implemented)
0176	Improvement in Management of Oral Medications	Home Health Value Based Purchasing (Implemented) Home Health Quality Reporting (Implemented)
0177	Improvement in pain interfering with activity	Home Health Value Based Purchasing (Implemented) Home Health Quality Reporting (Implemented)
0209	Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment	N/A
0383	Oncology: Plan of Care for Pain – Medical Oncology and Radiation Oncology (paired with 0384)	Hospital Care (Implemented) Prospective Payment System-Exempt Cancer Hospital Quality Reporting (Implemented) Merit-Based Incentive Payment System (MIPS) Program (Finalized)
0384	Oncology: Medical and Radiation - Pain Intensity Quantified (paired with 0383)	Merit-Based Incentive Payment System (MIPS) Program (Implemented)
0420	Pain Assessment and Follow-Up	N/A
0676	Percent of Residents Who Self-Report Moderate to Severe Pain (Short-Stay)	Nursing Home Quality Initiative (Implemented)
0677	Percent of Residents Who Self-Report Moderate to Severe Pain (Long-Stay)	Nursing Home Quality Initiative (Implemented)
1617	Patients Treated with an Opioid who are Given a Bowel Regimen	Hospice Quality Reporting (Implemented)
1628	Patients with Advanced Cancer Screened for Pain at Outpatient Visits	N/A
1634	Hospice and Palliative Care — Pain Screening	Hospice Quality Reporting (Implemented)

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[a] Per CMS Measures Inventory Tool as of 08/10/2019

NQF #	Title	Federal Programs: Finalized or Implemented as of May 31, 2019
1637	Hospice and Palliative Care — Pain Assessment	Hospice Quality Reporting (Implemented)
1638	Hospice and Palliative Care — Dyspnea Treatment	Hospice Quality Reporting (Implemented)
1639	Hospice and Palliative Care — Dyspnea Screening	Hospice Quality Reporting (Implemented)
1647	Beliefs and Values - Percentage of hospice patients with documentation in the clinical record of a discussion of spiritual/religious concerns or documentation that the patient/caregiver did not want to discuss	Hospice Quality Reporting (Implemented)
0326	Advance Care Plan	Home Health Value Based Purchasing (Implemented) Merit-Base Incentive Payment System (MIPS) Program (Finalized)
1626	Patients Admitted to ICU who Have Care Preferences Documented	N/A
1641	Hospice and Palliative Care – Treatment Preferences	Hospice Quality Reporting (Implemented)
0210	Proportion receiving chemotherapy in the last 14 days of life	Merit-Base Incentive Payment System (MIPS) Program (Finalized) Hospital Compare (Finalized) Prospective Payment System – Exempt Cancer Hospital Quality Reporting: (Finalized)
0213	Proportion admitted to the ICU in the last 30 days of life	Merit-Base Incentive Payment System (MIPS) Program (Finalized) Hospital Compare (Finalized) Prospective Payment System – Exempt Cancer Hospital Quality Reporting: (Finalized)
0215	Proportion not admitted to hospice	Merit-Base Incentive Payment System (MIPS) Program (Finalized) Hospital Compare (Finalized) Prospective Payment System – Exempt Cancer Hospital Quality Reporting: (Finalized)

NQF #	Title	Federal Programs: Finalized or Implemented as of May 31, 2019
0216	Proportion admitted to hospice for less than 3 days	Merit-Base Incentive Payment System (MIPS) Program (Finalized) Hospital Compare (Finalized) Prospective Payment System – Exempt Cancer Hospital Quality Reporting: (Finalized)
1623	Bereaved Family Survey	N/A
1625	Hospitalized Patients Who Die an Expected Death with an ICD that Has Been Deactivated	N/A
2651	CAHPS Hospice Survey (Experience with Care): 8 PRO-PMs: (Hospice Team Communication; Getting Timely Care; Getting Emotional and Religious Support; Getting Hospice Training; Rating of the Hospice Care; Willingness to Recommend the Hospice; Treating Family Member with Respect; Getting Help for Symptoms)	Hospice Quality Reporting (Implemented)
3235	Hospice and Palliative Care Composite Process Measure—Comprehensive Assessment at Admission	Hospice Quality Reporting (Implemented)

Appendix C: Geriatrics and Palliative Care Standing Committee and NQF Staff

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Appendix D: Measure Specifications

0167 Improvement in Ambulation/Locomotion

STEWARD

Centers for Medicare & Medicaid Services

DESCRIPTION

Percentage of home health episodes of care during which the patient improved in ability to ambulate.

TYPE

Outcome

DATA SOURCE

Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collet valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Ambulation/Locomotion measure) available to consumers and to the general public through the Medicare Home Health Compare website.

The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses.

LEVEL

Facility

SETTING

Home Care

NUMERATOR STATEMENT

Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in ambulation locomotion at discharge than at start (or resumption) of care.

NUMERATOR DETAILS

The number of home health episodes of care from the denominator in which the value recorded for the OASIS-C2 item M1860 ("Ambulation/Locomotion") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.

DENOMINATOR STATEMENT

Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.

DENOMINATOR DETAILS

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in walking or moving around (i.e. were not at the optimal level of health status according to the OASIS-C2 item M1860 ("Ambulation/Locomotion").

EXCLUSIONS

All home health episodes where the value recorded for the OASIS-C2 item M1860 ("Ambulation/Locomotion") on the start (or the resumption) of care assessment indicates minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or the episode is covered by the generic exclusions.

EXCLUSION DETAILS

Home health episodes of care for which (1) at start/resumption of care, OASIS-C2 item M1860 "Ambulation/ Locomotion" = 0, indicating that the patient was able to ambulate independently; OR (2) at start/resumption of care, OASIS-C2 item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are not collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other patient-level exclusions are applied, or if the agency has been in operation less than six months, then the data is suppressed from public reporting on Home Health Compare.

RISK ADJUSTMENT

Statistical risk model

Not Applicable

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

2. Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in ambulation/locomotion at start/resumption of care (M1860_CRNT_AMBLTN[1] = 00).

Cases meeting the target outcome are those where the patient is more independent in ambulation/mobility at discharge than at start/resumption of care:

M1860_CRNT_AMBLTN[2] < M1860_CRNT_AMBLTN[1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

P(x)=1/(1+e^(-(a+?¦?b_i x_i ?)))

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

X(A_ra)= X(A_obs)+ X(N_exp)-X(A_exp)

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 135810| 138874| 141015

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NA

0174 Improvement in Bathing

STEWARD

Centers for Medicare & Medicaid Services

DESCRIPTION

Percentage of home health episodes of care during which the patient got better at bathing self.

TYPE

Outcome

DATA SOURCE

Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS-C2), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Bathing measure) available to consumers and to the general public through the Medicare Home Health Compare website.

LEVEL

Facility

SETTING

Home Care

NUMERATOR STATEMENT

Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in bathing at discharge than at start (or resumption) of care.

NUMERATOR DETAILS

Number of home health episodes from the denominator in which the value recorded for the OASIS-C2 item M1830 ("Bathing") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.

DENOMINATOR STATEMENT

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in bathing (i.e., were not at the optimal level of health status according to the "Bathing" OASIS-C2 item M1830).

DENOMINATOR DETAILS

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in bathing (i.e., were not at the optimal level of health status according to the "Bathing" OASIS-C item M1830).

EXCLUSIONS

All home health episodes where at the start (or resumption) of care assessment the patient had minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or was covered by the generic exclusions.

EXCLUSION DETAILS

Home health episodes of care for which [1] at start/resumption of care OASIS item M1830 = 0, indicating the patient was able to bathe self independently; OR (2) at start/resumption of care, OASIS item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are

not collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment

source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other

patient-level exclusions are applied, or if the agency has been in

operation less than six months, then the data is suppressed from public

reporting on Home Health Compare.

RISK ADJUSTMENT

Statistical risk model

STRATIFICATION

Not applicable

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in bathing at start/resumption of care (M1830_CRNT_BATHG[1] = 00).

Cases meeting the target outcome are those where the patient is more independent in bathing at discharge than at start/resumption of care:

M1830_CRNT_BATHG[2] < M1830_CRNT_BATHG[1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

P(x)=1/(1+e^(-(a+?¦?b_i x_i ?)))

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

X(A_ra)= X(A_obs)+ X(N_exp)-X(A_exp)

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 135810| 138874| 141015

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NA

0175 Improvement in Bed Transferring

STEWARD

Centers for Medicare & Medicaid Services

DESCRIPTION

Percentage of home health episodes of care during which the patient improved in ability to get in and out of bed.

TYPE

Outcome

DATA SOURCE

Electronic Health Records The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Bed Transferring measure) available to consumers and to the general public through the Medicare Home Health Compare website.

The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses.

LEVEL

Facility

SETTING

Home Care

NUMERATOR STATEMENT

Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in bed transferring at discharge than at start (or resumption) of care.

NUMERATOR DETAILS

Home health episodes of care from the denominator in which the value recorded for the OASIS-C2 item M1850 ("Transferring") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.

DENOMINATOR STATEMENT

The number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.

DENOMINATOR DETAILS

All home health episodes of care (except those defined in the denominator exclusion) in which the patient was eligible to improve in bed transferring (i.e., were not at the optimal level of health status according to the "Transferring" OASIS-C item M1850).

EXCLUSIONS

All home health episodes where at the start (or resumption) of care assessment the patient is able to transfer independently, or the patient is non-responsive. or the episode of care ended in transfer to inpatient facility or death at home, or the episode is covered by the generic exclusions.

EXCLUSION DETAILS

Home health episodes of care for which [1] at start/resumption of care OASIS item M1850 = 0, indicating the patient was able to transfer to/from bed independently; OR (2) at start/resumption of care, OASIS-C2 item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are

not collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment

source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other patient-level exclusions are applied, or if the agency has been in operation less than six months, then the data is suppressed from public reporting on Home Health Compare.

RISK ADJUSTMENT

Statistical risk model

STRATIFICATION

Not Applicable

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in transferring at start/resumption of care (M1850_CRNT_TRNSFRING[1] = 00).

Cases meeting the target outcome are those where the patient is more independent in transferring at discharge than at start/resumption of care:

M1850_CRNT_TRNSFRING[2] < M1850_CRNT_TRNSFRING[1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

$P(x)=1/(1+e^{\wedge}(-(a+?¦?b\_i\ x\_i\ ?)\ )\ )$

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

$X(A\_ra) = X(A\_obs) + X(N\_exp) - X(A\_exp)$

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 136568| 137428| 138696| 134819| 140506| 141130| 141592| 142923| 138874| 141015

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NA

0176 Improvement in Management of Oral Medications

STEWARD

Centers for Medicare & Medicaid Services

DESCRIPTION

The percentage of home health episodes of care during which the patient improved in ability to take their medicines correctly, by mouth.

TYPE

Outcome

DATA SOURCE

Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at

discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Management of Oral Medications measure) available to consumers and to the general public through the Medicare Home Health Compare website.

The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses.

LEVEL

Facility

SETTING

Home Care

NUMERATOR STATEMENT

The number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in taking oral medications at discharge than at start (or resumption) of care.

NUMERATOR DETAILS

Home health episodes of care from the denominator in which the value recorded for the OASIS-C2 item M2020 ("Management of Oral Medications") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.

DENOMINATOR STATEMENT

Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.

DENOMINATOR DETAILS

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in taking medications correctly (i.e., were not at the optimal level of health status according to the "Management of Oral Medications" OASIS-C2 item M2020).

EXCLUSIONS

All home health episodes where at start (or resumption) of care the patient is not taking any oral medications or has minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death, or the episode is covered by the generic exclusions.

Home health episodes of care for which (1) at start/resumption of care, OASIS-C2 item M2020 ("Management of Oral Medications") indicating the patient was able to independently take the correct oral medication(s) and proper dosage(s) at the correct time = 0, indicating that the patient was able to ambulate independently; OR (2) at start/resumption of care, OASIS-C2 item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are

not collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment

source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other

patient-level exclusions are applied, or if the agency has been in operation

less than

six months, then the data is suppressed from public reporting on Home Health

Compare.

RISK ADJUSTMENT

Statistical risk model

STRATIFICATION

Not Applicable

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in managing oral medications at start/resumption of care (M2020_CRNT_MGMT_ORAL_MDCTN[1] = 00).

Cases meeting the target outcome are those where the patient is more independent in managing oral medications at discharge than at start/resumption of care:

M2020_CRNT_MGMT_ORAL_MDCTN [2] < M2020_CRNT_MGMT_ORAL_MDCTN [1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

$P(x) = 1/(1 + e^{\wedge}(-(a + ? ¦ ? b\_i x\_i ?))))$

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

X(A_ra) = X(A_obs) + X(N_exp) - X(A_exp)

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 138874| 141015

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NA

0177 Improvement in Pain Interfering with Activity

STEWARD

Centers for Medicare & Medicaid Services

DESCRIPTION

The percentage of home health episodes of care during which the frequency of the patient's pain when moving around improved.

TYPE

Outcome

DATA SOURCE

Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Pain Interfering with Activity measure) available to consumers and to the general public through the Medicare Home Health Compare website.

The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses.

LEVEL

Facility

SETTING

Home Care

NUMERATOR STATEMENT

The number of home health episodes of care where the value recorded on the discharge assessment indicates less frequent pain at discharge than at start (or resumption) of care.

NUMERATOR DETAILS

The number of home health episodes where the value recorded for the OASIS-C2 item M1242 ("Frequency of Pain Interfering with Activity") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less frequent pain interfering with activity at discharge.

DENOMINATOR STATEMENT

Number of home heath episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure- specific exclusions.

DENOMINATOR DETAILS

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in pain interfering with activity or movement (i.e., were not at the optimal level of health status according to the "Frequency of Pain Interfering" OASIS-C2 item M1242).

EXCLUSIONS

All home health episodes where there is no pain reported at the start (or resumption) of care assessment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or the episodes is covered by one of the generic exclusions.

EXCLUSION DETAILS

Home health episodes of care for which [1] at start/resumption of care OASIS item M1242 = 0, indicating the patient had no pain; OR [2] at start/ resumption of care, OASIS item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR [3] The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR [4] All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are not

collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment

source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other

patient-level exclusions are applied, or if the agency has been in

operation less than six months, then the data is suppressed from public

reporting on Home Health Compare.

RISK ADJUSTMENT

Statistical risk model

STRATIFICATION

Not Applicable

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients with no pain interfering with activity at start/resumption of care (M1242_PAIN_FREQ_ACTVTY_MVMT [1] = 00).

Cases meeting the target outcome are those where the patient has less pain interfering with activity at discharge than at start/resumption of care:

M1242_PAIN_FREQ_ACTVTY_MVMT[2] < M1242_PAIN_FREQ_ACTVTY_MVMT[1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

P(x)=1/(1+e^(-(a+?¦?b_i x_i ?)))

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

X(A_ra)= X(A_obs)+ X(N_exp)-X(A_exp)

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 138874| 141015

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NA

Appendix E1: Related Measures (tabular format)

Comparison of NQF 0167, 0174, and 0175 with other functional status measures (NQF 2287, 2321, 2632, 2634, 2774, 2775, 2776, 2778, 2612, and 2613)

	0167 Improvement in Ambulation/locomotion	0174 Improvement in bathing	0175 Improvement in bed transferring	2287 Functional Change: Change in Motor Score	2321 Functional Change: Change in Mobility Score
Steward	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.	Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.
Description	Percentage of home health episodes of care during which the patient improved in ability to ambulate.	Percentage of home health episodes of care during which the patient got better at bathing self.	Percentage of home health episodes of care during which the patient improved in ability to get in and out of bed.	Change in rasch derived values of motor function from admission to discharge among adult inpatient rehabilitation facility patients aged 18 years and older who were discharged alive. The timeframe for the measure is 12 months. The measure includes the following 12 FIM® items:Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.	Change in rasch derived values of mobility function from admission to discharge among adult inpatient rehabilitation facility patients aged 18 years and older who were discharged alive. The timeframe for the measure is 12 months. The measure includes the following 4 mobility FIM® items:Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.
Type	Outcome	Outcome	Outcome	Outcome	Outcome
Data Source	Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collet valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS	Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS-C2), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and	Electronic Health Records The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process	Claims (Only), Other The collection instrument is the Functional Change: Change in Motor Score form attached as an appendix to this application. Attachment NQF_Submission.xlsx	Other The collection instrument is the Functional Change: Change in Motor Score form attached as an appendix to this application. The items for this measure are part of that form. Attachment NQF_Submission_Mobility-635533914241373843.xlsx

	0167 Improvement in Ambulation/locomotion	0174 Improvement in bathing	0175 Improvement in bed transferring	2287 Functional Change: Change in Motor Score	2321 Functional Change: Change in Mobility Score
	repository, and makes measures based on these data (including the Improvement in Ambulation/Locomotion measure) available to consumers and to the general public through the Medicare Home Health Compare website. The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses. Available at measure-specific web page URL identified in S.1 Attachment isc_mstr_-V2.21.1-_FINAL_08-15-2017.xlsx	potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Bathing measure) available to consumers and to the general public through the Medicare Home Health Compare website. Available at measure-specific web page URL identified in S.1 Attachment isc_mstr_-V2.21.1-_FINAL_08-15-2017_-_combined_worksheets-636686551475687631.xlsx	measure reports based on their own OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Bed Transferring measure) available to consumers and to the general public through the Medicare Home Health Compare website. The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses. Available at measure-specific web page URL identified in S.1 Attachment isc_mstr_-V2.21.1-_FINAL_08-15-2017-636703732867896676.xlsx		
Level	Facility	Facility	Facility	Facility	Facility
Setting	Home Care	Home Care	Home Care	Home Health, Inpatient Rehabilitation Facility, Long Term Acute Care, Nursing Home / SNF	Inpatient/Hospital, Post-Acute Care
Numerator Statement	Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in ambulation locomotion at discharge than at start (or resumption) of care.	Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in bathing at discharge than at start (or resumption) of care.	Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in bed transferring at discharge than at start (or resumption) of care.	Average change in rasch derived motor functional score from admission to discharge at the facility level. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the IRF or patients who died within the IRF are excluded.	Average change in rasch derived mobility functional score from admission to discharge at the facility level. Includes the following FIM items: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the facility or patients who died within the facility are excluded.
Numerator Details	The number of home health episodes of care from the denominator in which the value recorded for the OASIS-C2 item M1860 ("Ambulation/Locomotion") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.	Number of home health episodes from the denominator in which the value recorded for the OASIS-C2 item M1830 ("Bathing") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.	Home health episodes of care from the denominator in which the value recorded for the OASIS-C2 item M1850 ("Transferring") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.	For Inpatient Rehabilitation Facilities (IRFs) data collection currently occurs as required by the Centers for Medicare and Medicaid Services (CMS) reimbursement using the mandated payment document, the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI). Embedded in the IRF-PAI is the FIM® Instrument. The FIM® Instrument is a	For Inpatient Rehabilitation Facilities (IRFs) data collection currently occurs as required by the Centers for Medicare and Medicaid Services (CMS) reimbursement using the mandated payment document, the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI). Embedded in the IRF-PAI is the FIM® Instrument. The FIM® Instrument is a

	0167 Improvement in Ambulation/locomotion	0174 Improvement in bathing	0175 Improvement in bed transferring	2287 Functional Change: Change in Motor Score	2321 Functional Change: Change in Mobility Score
				criterion referenced tool with 18 items that measures burden of care or level of dependence among individuals for those 18 items. Each item is rated on a scale of 1 (most dependent) to 7 (completely independent). For the purposes of this measure, a subset of 12 FIM® items has been tested and validated. Those items are: Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Rasch analysis was performed on the 12 items and the difference in the rasch derived values (defined in S.2b) from admission to discharge reflect the change at the patient level. The numerator of the measure is the facility's average change. While the IRF-PAI is specific to inpatient rehabilitation facilities, the measure can be used in all post-acute care venues. The FIM® instrument can be assessed in all venues of care and has been tested and validated in both LTACs and SNFs. In fact, there are a subset of LTACs and SNFs utilizing the FIM® instrument currently (www.udsmr.org), and therefore this measure does not have to be specific to IRFs.	criterion referenced tool with 18 items that measures burden of care or level of dependence among individuals for those 18 items. Each item is rated on a scale of 1 (most dependent) to 7 (completely independent). For the purposes of this measure, a subset of 4 FIM® items has been tested and validated. Those items are: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Rasch analysis was performed on the 12 items and the difference in the rasch derived values (defined in S.2b) from admission to discharge reflect the change at the patient level. The numerator of the measure is the facility´s average change. While the IRF-PAI is specific to inpatient rehabilitation facilities, the measure can be used in all post-acute care venues. The FIM® instrument can be assessed in all venues of care and has been tested and validated in both LTACs and SNFs. In fact, there are a subset of LTACs and SNFs utilizing the FIM® instrument currently (www.udsmr.org), and therefore this measure does not have to be specific to IRFs.
Denominator Statement	Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.	All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in bathing (i.e., were not at the optimal level of health status according to the "Bathing" OASIS-C2 item M1830).	The number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.	Facility adjusted adjusted expected change in rasch derived values, adjusted at the Case Mix Group level.	Facility adjusted adjusted expected change in rasch derived values, adjusted at the Case Mix Group level.
Denominator Details	All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in walking or moving around (i.e. were not at the optimal level of health status according to the OASIS-C2 item M1860 ("Ambulation/Locomotion").	All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in bathing (i.e., were not at the optimal level of health status according to the "Bathing" OASIS-C item M1830).	All home health episodes of care (except those defined in the denominator exclusion) in which the patient was eligible to improve in bed transferring (i.e., were not at the optimal level of health status according to the "Transferring" OASIS-C item M1850).	To calculate the facility's adjusted expected change in rasch derived values, indirect standardization is used, which weights national CMG-specific values by facility-specific CMG proportions. CMG-adjustment derives the expected value based on the case mix and severity mix of each facility. The case-mix group (CMG) classification system groups similarly impaired patients based on functional	To calculate the facility´s adjusted expected change in rasch derived values, indirect standardization is used, which weights national CMG-specific values by facility-specific CMG proportions. CMG-adjustment derives the expected value based on the case mix and severity mix of each facility. The case-mix group (CMG) classification system groups similarly impaired patients based on functional

	0167 Improvement in Ambulation/locomotion	0174 Improvement in bathing	0175 Improvement in bed transferring	2287 Functional Change: Change in Motor Score	2321 Functional Change: Change in Mobility Score
				status at admission or in essence, patient severity. Patients within the same CMG are expected to have similar resource utilization needs and similar outcomes. There are three steps to classifying a patient into a CMG at admission: 1. Identify the patient's impairment group code (IGC). 2. Calculate the patient's weighted motor index score, calculated from 12 of the 13 motor FIM® items. 3. Calculate the cognitive FIM® rating and the age at admission. (This step is not required for all CMGs.) See file uploaded in S.15 for calculations. While CMGs are only present for patients seen in an IRF, the same procedure can be used for LTAC and SNF patients, with groupings specific to those venues of care.	status at admission or in essence, patient severity. Patients within the same CMG are expected to have similar resource utilization needs and similar outcomes. There are three steps to classifying a patient into a CMG at admission: 1. Identify the patient's impairment group code (IGC). 2. Calculate the patient's weighted motor index score, calculated from 12 of the 13 motor FIM® items. 3. Calculate the cognitive FIM® rating and the age at admission. (This step is not required for all CMGs.) See file uploaded in S.2b for calculations.
Exclusions	All home health episodes where the value recorded for the OASIS-C2 item M1860 ("Ambulation/Locomotion") on the start (or the resumption) of care assessment indicates minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or the episode is covered by the generic exclusions.	All home health episodes where at the start (or resumption) of care assessment the patient had minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or was covered by the generic exclusions.	All home health episodes where at the start (or resumption) of care assessment the patient is able to transfer independently, or the patient is non-responsive. or the episode of care ended in transfer to inpatient facility or death at home, or the episode is covered by the generic exclusions.	National values used in the CMG-adjustment procedure will not include cases who died in the IRF (or other venue) or cases less than 18 years old. Cases who died during rehabilitation are not typical patients and are typically omitted in the literature when looking at rehabilitation outcomes. In addition, the FIM instrument is meant for an adult population (Ottenbacher et al. 1996).	National values used in the CMG-adjustment procedure will not include cases who died in the IRF (or other venue) or cases less than 18 years old. Cases who died during rehabilitation are not typical patients and are typically omitted in the literature when looking at rehabilitation outcomes. In addition, the FIM instrument is meant for an adult population (Ottenbacher et al. 1996).
Exclusion Details	Home health episodes of care for which (1) at start/resumption of care, OASIS-C2 item M1860 "Ambulation/ Locomotion" = 0, indicating that the patient was able to ambulate independently; OR (2) at start/resumption of care, OASIS-C2 item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions: a. Pediatric home health patients - less than 18 years of age as data are not collected for these patients. b. Home health patients receiving maternity care only.	Home health episodes of care for which [1] at start/resumption of care OASIS item M1830 = 0, indicating the patient was able to bathe self independently; OR (2) at start/resumption of care, OASIS item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions: a. Pediatric home health patients - less than 18 years of age as data are not collected for these patients. b. Home health patients receiving maternity care only.	Home health episodes of care for which [1] at start/resumption of care OASIS item M1850 = 0, indicating the patient was able to transfer to/from bed independently; OR (2) at start/resumption of care, OASIS-C2 item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions: a. Pediatric home health patients - less than 18 years of age as data are	Patient's date of birth (DOB) and discharge setting are both variables collected in the IRF-PAI document. Age can be calculated from DOB, and there is a specific discharge setting of died, value '11'. Date of birth and discharge setting are also documented in both LTACs and SNFs.	Patient´s date of birth (DOB) and discharge setting are both variables collected in the IRF-PAI document. Age can be calculated from DOB, and there is a specific discharge setting of died, value ´11´. Date of birth and discharge setting are also documented in both LTACs and SNFs.

	0167 Improvement in Ambulation/locomotion	0174 Improvement in bathing	0175 Improvement in bed transferring	2287 Functional Change: Change in Motor Score	2321 Functional Change: Change in Mobility Score
	c. Home health clients receiving non-skilled care only. d. Home health patients for which neither Medicare nor Medicaid are a payment source. e. The episode of care does not end during the reporting period. f. If the agency sample includes fewer than 20 episodes after all other patient-level exclusions are applied, or if the agency has been in operation less than six months, then the data is suppressed from public reporting on Home Health Compare.	c. Home health clients receiving non-skilled care only. d. Home health patients for which neither Medicare nor Medicaid are a payment source. e. The episode of care does not end during the reporting period. f. If the agency sample includes fewer than 20 episodes after all other patient-level exclusions are applied, or if the agency has been in operation less than six months, then the data is suppressed from public reporting on Home Health Compare.	not collected for these patients. b. Home health patients receiving maternity care only. c. Home health clients receiving non-skilled care only. d. Home health patients for which neither Medicare nor Medicaid are a payment source. e. The episode of care does not end during the reporting period. f. If the agency sample includes fewer than 20 episodes after all other patient-level exclusions are applied, or if the agency has been in operation less than six months, then the data is suppressed from public reporting on Home Health Compare.		
Risk Adjustment	Statistical risk model	Statistical risk model	Statistical risk model	Stratification by risk category/subgroup	Stratification by risk category/subgroup
Stratification	Not Applicable	Not applicable	Not Applicable	While the measure can be stratified by specific impairment type, the CMG adjustment procedure allows for the measure to be complete, accurate, and valid for all patients within the facility, excluding died cases and ages less than 18.	While the measure can be stratified by specific impairment type, the CMG adjustment procedure allows for the measure to be complete, accurate, and valid for all patients within the facility, excluding died cases and ages less than 18.
Type Score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score	Ratio better quality = higher score	Ratio better quality = higher score
Algorithm	1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures. 2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions. 2. Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08). Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in ambulation/locomotion at start/resumption of care	1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures. 2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions. Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08). Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in bathing at start/resumption of care	1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures. 2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions. Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08). Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTIO	1. Target population: Inpatient rehabilitation facility patients, skilled nursing facility short term patients, long term acute care facility patients, and home health patients. 2. Exclusions: Age less than 18 and cases who died during the episode of care. 3. Cases meeting target process: All remaining cases. 4. Outcome: Ratio of facility level average motor change (rasch derived values) to facility CMG adjusted expected motor change. 5. Risk adjustment: CMG adjustment using indirect standardization of the proportion of cases at the facility by CMG, and CMG specific national average of rasch derived value of motor change. 135063	1. Target population: Inpatient rehabilitation facility patients, skilled nursing facility short term patients, long term acute care facility patients, and home health patients. 2. Exclusions: Age less than 18 and cases who died during the episode of care. 3. Cases meeting target process: All remaining cases. 4. Outcome: Ratio of facility level average motor change (rasch derived values) to facility CMG adjusted expected motor change. 5. Risk adjustment: CMG adjustment using indirect standardization of the proportion of cases at the facility by CMG, and CMG specific national average of rasch derived value of mobility change. 135063| 135810| 117446| 136960| 114481

	0167 Improvement in Ambulation/locomotion	0174 Improvement in bathing	0175 Improvement in bed transferring	2287 Functional Change: Change in Motor Score	2321 Functional Change: Change in Mobility Score
	(M1860_CRNT_AMBLTN[1] = 00). Cases meeting the target outcome are those where the patient is more independent in ambulation/mobility at discharge than at start/resumption of care: M1860_CRNT_AMBLTN[2] < M1860_CRNT_AMBLTN[1]. 3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria. 4. Risk Adjustment: The expected probability for a patient is calculated using the following formula: $P(x)=1/(1+e^{\wedge}(-(a+?¦?b\_i\ x\_i\ ?)))$ Where: P(x) = predicted probability of achieving outcome x a = constant parameter listed in the model documentation bi = coefficient for risk factor i in the model documentation xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors. Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows: $X(A\_ra)= X(A\_obs)+ X(N\_exp)-X(A\_exp)$ Where: X(Ara) = Agency risk-adjusted outcome measure value X(Aobs) = Agency observed outcome measure value X(Aexp) = Agency expected outcome measure value X(Nexp) = National expected outcome measure value If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 135810| 138874| 141015	(M1830_CRNT_BATHG[1] = 00). Cases meeting the target outcome are those where the patient is more independent in bathing at discharge than at start/resumption of care: M1830_CRNT_BATHG[2] < M1830_CRNT_BATHG[1]. 3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria. 4. Risk Adjustment: The expected probability for a patient is calculated using the following formula: $P(x)=1/(1+e^{\wedge}(-(a+?¦?b\_i\ x\_i\ ?)))$ Where: P(x) = predicted probability of achieving outcome x a = constant parameter listed in the model documentation bi = coefficient for risk factor i in the model documentation xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors. Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows: $X(A\_ra)= X(A\_obs)+ X(N\_exp)-X(A\_exp)$ Where: X(Ara) = Agency risk-adjusted outcome measure value X(Aobs) = Agency observed outcome measure value X(Aexp) = Agency expected outcome measure value X(Nexp) = National expected outcome measure value If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 135810| 138874| 141015	N[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in transferring at start/resumption of care (M1850_CRNT_TRNSFRING[1] = 00). Cases meeting the target outcome are those where the patient is more independent in transferring at discharge than at start/resumption of care: M1850_CRNT_TRNSFRING[2] < M1850_CRNT_TRNSFRING[1]. 3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria. 4. Risk Adjustment: The expected probability for a patient is calculated using the following formula: $P(x)=1/(1+e^{\wedge}(-(a+?¦?b\_i\ x\_i\ ?)))$ Where: P(x) = predicted probability of achieving outcome x a = constant parameter listed in the model documentation bi = coefficient for risk factor i in the model documentation xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors. Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows: $X(A\_ra)= X(A\_obs)+ X(N\_exp)-X(A\_exp)$ Where: X(Ara) = Agency risk-adjusted outcome measure value		

	0167 Improvement in Ambulation/locomotion	0174 Improvement in bathing	0175 Improvement in bed transferring	2287 Functional Change: Change in Motor Score	2321 Functional Change: Change in Mobility Score
			X(Aobs) = Agency observed outcome measure value X(Aexp) = Agency expected outcome measure value X(Nexp) = National expected outcome measure value If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 136568| 137428| 138696| 134819| 140506| 141130| 141592| 142923| 138874| 141015		
Submission items	5.1 Identified measures: 2612 : CARE: Improvement in Mobility 0429 : Change in Basic Mobility as Measured by the AM-PAC: 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: see 5b.1. 5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS for outcome measures reporting rates of improvement in ambulation/locomotion indicated there are no other endorsed measures that report on improvement in ambulation/locomotion in the home health population. There are two related but not competing measures. Change in Basic Mobility as Measured by the AM-PAC (NQF #0429) is a measure of reported changes in patient functioning in transfers, walking, wheelchair skills, stairs, bend/lift/ and carrying tasks as measured by the Activity Measure for Post-Acute Care (AM-PAC). The AM-PAC is a functional status assessment instrument developed specifically for use in facility and community dwelling post-acute care (PAC) patients. However, these measures are focused on overall mobility (not just ambulation/locomotion), and are calculated using data. CARE: Improvement in Mobility (NQF# 2612) is a measure of mobility based on the subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure specifications and exclusions don't currently apply to home health.	5.1 Identified measures: 0430 : Change in Daily Activity Function as Measured by the AM-PAC: 2613 : CARE: Improvement in Self Care 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: see 5b.1. 5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS indicated there are no other endorsed measures that report on rates of improvement in bathing in the home health population. Change in Daily Activity Function as Measured by the AM-PAC (NQF #0430) is a measure of reported changes in patient functioning in the areas of feeding, meal preparation, hygiene, grooming, and dressing as measured by the Activity Measure for Post-Acute Care (AM-PAC), a functional status assessment instrument developed specifically for use in facility and community dwelling post-acute care (PAC) patients. However, the AM-PAC measure is focused on overall functioning (not just bathing), and is calculated using data that are not currently collected in the home health setting. CARE: Improvement in Self Care (NQF# 2613) is a measure of self-care based on the subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure specifications and exclusions don't currently apply to home health.	5.1 Identified measures: 2612 : CARE: Improvement in Mobility 0429 : Change in Basic Mobility as Measured by the AM-PAC: 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: see 5b.1. 5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS for outcome measures reporting rates of improvement in bed transfer indicated there are no other endorsed measures that report on improvement in bed transfer in the home health population. There are two related but not competing measures. Change in Basic Mobility as Measured by the AM-PAC (NQF #0429) is a measure of reported changes in patient functioning in transfers, walking, wheelchair skills, stairs, bend/lift/ and carrying tasks as measured by the Activity Measure for Post-Acute Care (AM-PAC). The AM-PAC is a functional status assessment instrument developed specifically for use in facility and community dwelling post-acute care (PAC) patients. However, these measures are focused on overall mobility (not just bed transferring), and are calculated using data. CARE: Improvement in Mobility (NQF# 2612) is a measure of mobility based on the subscale of the Continuity Assessment and Record Evaluation (CARE) Tool	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value:	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: Measure #2321 is similar to CMS Measure #2634, however Measure #2634 is only intended for Medicare patients whereas Measure #2321 is intended for all patients receiving post acute care.

	0167 Improvement in Ambulation/locomotion	0174 Improvement in bathing	0175 Improvement in bed transferring	2287 Functional Change: Change in Motor Score	2321 Functional Change: Change in Mobility Score
			and information from the admission MDS 3.0 assessment. The measure specifications and exclusions don't currently apply to home health.		

Comparison of NQF 0167, 0174, and 0175 with other functional status measures (NQF 2287, 2321, 2632, 2634, 2774, 2775, 2776, 2778, 2612, and 2613) — continued

	2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support	2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities	2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities	2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities
Steward	Centers for Medicare & Medicaid Services	Centers for Medicare & Medicaid Services	Uniform Data System for Medical Rehabilitation, a	Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.	Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.
Description	This measure estimates the risk-adjusted change in mobility score between admission and discharge among LTCH patients requiring ventilator support at admission.	This measure estimates the mean risk-adjusted mean change in mobility score between admission and discharge for Inpatient Rehabilitation Facility (IRF) Medicare Part A and Medicare Advantage patients.	Change in rasch derived values of mobility function from admission to discharge among adult short term rehabilitation skilled nursing facility patients aged 18 years and older who were discharged alive. The time frame for the measure is 12 months. The measure includes the following 4 mobility items:Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.	Change in rasch derived values of motor function from admission to discharge among adult short term rehabilitation skilled nursing facility patients aged 18 years and older who were discharged alive. The time frame for the measure is 12 months. The measure includes the following 12 items:Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.	Change in rasch derived values of motor function from admission to discharge among adult long term acute care facility patients aged 18 years and older who were discharged alive. The timeframe for the measure is 12 months. The measure includes the following 12 items:Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.
Type	Outcome	Outcome	Outcome	Outcome	Outcome
Data Source	Instrument-Based Data LTCH CARE Data Set No data collection instrument provided Attachment Change_in_Mobility_NQF_2632_Risk_Adj_Model_01-07-2019-636824735650484277.xlsx	Instrument-Based Data Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI). No data collection instrument provided Attachment Change_in_Mobility_NQF_2634_Risk_Adj_Model_01-07-2019.xlsx	Electronic Health Records, Other, Registry Data Functional Change Form, as seen in the appendix. Available in attached appendix at A.1 Attachment NQF_Submission_Mobility-635749898391586121.xlsx	Electronic Health Records, Other, Paper Medical Records Functional Change Form, as seen in the appendix. Available in attached appendix at A.1 Attachment NQF_Submission-635749892715380581.xlsx	Electronic Health Records, Other, Paper Medical Records Functional Change Form, as seen in the appendix. Available in attached appendix at A.1 Attachment NQF_Submission-635749865761904393.xlsx
Level	Facility	Facility	Facility	Facility	Facility
Setting	Post-Acute Care	Post-Acute Care	Post-Acute Care	Post-Acute Care	Post-Acute Care
Numerator Statement	The measure does not have a simple form for the numerator and denominator. This measure estimates the risk-adjusted change in mobility score between admission and discharge among LTCH patients requiring ventilator support at admission. The change in mobility score is calculated as the difference between the discharge mobility score and the admission mobility score.	The measure does not have a simple form for the numerator and denominator. This measure estimates the risk-adjusted change in mobility score between admission and discharge among Inpatient Rehabilitation Facility (IRF) Medicare Part A and Medicare Advantage patients age 21 and older. The change in mobility score is calculated as the difference between the discharge mobility score and the admission mobility score.	Average change in rasch derived mobility functional score (Items Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) from admission to discharge at the facility level. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the facility or patients who died within the facility are excluded.	Average change in rasch derived motor functional score from admission to discharge at the facility level for short term rehabilitation patients. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the SNF or patients who died within the SNF are excluded.	Average change in rasch derived motor functional score from admission to discharge at the facility level for short term rehabilitation patients. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the LTAC or patients who died within the LTAC are excluded.

	2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support	2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities	2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities	2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities
Numerator Details	Eight mobility activities (listed below) are each scored by a clinician based on a patient's ability to complete the activity. The scores for the 8 mobility activities are summed to obtain a mobility score at the time of admission and discharge. The change in mobility is the difference between the discharge mobility score and the admission mobility score. Each patient's ability to complete each mobility activity (item) is rated by a clinician using the following 6-level rating scale: level 06 - Independent level 05 - Setup or clean up assistance level 04 - Supervision or touching assistance level 03 - Partial/moderate assistance level 02 - Substantial/maximal assistance level 01 - Dependent The 8 mobility items are: GG0170A. Roll left and right GG0170B. Sit to lying GG0170C. Lying to sitting on side of bed GG0170D. Sit to stand GG0170E. Chair/bed-to-chair transfer GG0170F. Toilet transfer GG0170J. Walk 50 feet with two turns GG0170K. Walk 150 feet If the patient did not attempt the activity, the reason that the activity did not occur is reported as: 07 = Patient refused 09 = Not applicable 10 = Not attempted due to environmental limitations 88 = Not attempted due to medical condition or safety concerns. The performance period is 24 months for reporting on CMS's LTCH Compare website.	Seventeen mobility activities are each scored based on a patient's ability to complete the activity. The scores for the activities are summed to obtain a mobility score at the time of admission and at the time of discharge. The change in mobility is the difference between the discharge mobility score and the admission mobility score. Each patient's ability to complete each mobility activity (item) is rated by a clinician using the following 6-level rating scale: level 06 - Independent level 05 - Setup or clean up assistance level 04 - Supervision or touching assistance level 03 - Partial/moderate assistance level 02 - Substantial/maximal assistance level 01 - Dependent The mobility items are: GG0170A. Roll left and right GG0170B. Sit to lying GG0170C. Lying to sitting on side of bed GG0170D. Sit to stand GG0170E. Chair/bed-to-chair transfer GG0170F. Toilet transfer GG0170G. Car transfer GG0170I. Walk 10 feet GG0170J. Walk 50 feet with two turns GG0170K. Walk 150 feet GG0170L. Walking 10 feet on uneven surfaces GG1070M. 1 step (curb) GG0170N. 4 steps GG0170O. 12 steps GG0170P. Picking up object GG0170R. Wheel 50 feet with two turns (for patients who do not walk at admission and discharge) GG0170S. Wheel 150 feet (for patients who do not walk at admission and discharge) If the patient did not attempt the activity, the reason that activity did not occur is reported as: 07 = Patient refused 09 = Not applicable 10 = Not attempted due to environmental limitations 88 = Not attempted due to medical condition or safety concerns. The performance period is 12 months for reporting on CMS's IRF Compare website.	The target population is all short term rehabilitation patients at the skilled nursing facility, at least 18 years old, who did not die in the SNF. The numerator is the average change in rasch derived mobility functional score from admission to discharge for each patient at the facility level, including items: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as: (sum of change at the patient level for all items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) / total number of patients).	The target population is all short term rehabilitation patients at the skilled nursing facility, at least 18 years old, who did not die in the SNF. The numerator is the average change in rasch derived motor functional score from admission to discharge for each patient at the facility level, including items: Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as: (sum of change at the patient level for all items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) / total number of patients).	The target population is all LTAC patients, at least 18 years old, who did not die in the LTAC. The numerator is the average change in rasch derived motor functional score from admission to discharge for each patient at the facility level, including items: Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as: (sum of change at the patient level for all items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) / total number of patients).
Denominator Statement	The target population (denominator) for this quality measure is the number of LTCH patients requiring ventilator support at the time of admission to the LTCH.	The denominator is the number of Inpatient Rehabilitation Facility Medicare Part A and Medicare Advantage patient stays, except those that meet the exclusion criteria.	Facility adjusted adjusted expected change in rasch derived values, adjusted at the Skilled Nursing Facility Case Mix Group level.	Facility adjusted expected change in rasch derived values, adjusted for SNF-CMG (Skilled Nursing Facility Case Mix Group), based on impairment type,	Facility adjusted expected change in rasch derived values, adjusted for CMG (Case Mix Group), based on impairment type, admission functional status, and age.

	2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support	2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities	2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities	2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities
				admission functional status, and age.	
Denominator Details	The denominator includes all LTCH patients requiring ventilator support on admission who are discharged during the performance period, including patients age 21 and older with all payer sources. Patients are selected based on submitted LTCH Care Data Set Admission and Discharge assessment forms.	The denominator is the number of Inpatient Rehabilitation Facility Medicare Part A and Medicare Advantage patient stays, except those that meet the exclusion criteria.	The target population is all short term rehabilitation patients at the skilled nursing facility, at least 18 years old, who did not die in the SNF. Impairment type is defined as the primary medical reason for the SNF short term rehabilitation stay (such as stroke, joint replacement, brain injury, etc.). Admission functional status is the expected value of the average of the sum 4 items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) at the facility level. Age is the age of the patient at the time of admission to the SNF. The denominator is meant to reflect the expected Mobility functional change score at the facility, if the facility had the same distribution of SNF-CMGs (based on impairment type, functional status at admission, and age at admission). This adjustment procedure is an indirect standarization procedure (observed facility average/expected facility average).	The target population is all short term rehabilitation patients at the skilled nursing facility, at least 18 years old, who did not die in the SNF. Impairment type is defined as the primary medical reason for the SNF short term rehabilitation stay (such as stroke, joint replacement, brain injury, etc.). Admission functional status is the expected value of the average of the sum 12 items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) at the facility level. Age is the age of the patient at the time of admission to the SNF. The denominator is meant to reflect the expected motor functional change score at the facility, if the facility had the same distribution of SNF-CMGs (based on impairment type, functional status at admission, and age at admission). This adjustment procedure is an indirect standardization procedure (observed facility average/expected facility average).	The target population is all LTAC patients, at least 18 years old, who did not die in the LTAC. Impairment type is defined as the primary medical reason for the LTAC stay (such as stroke, joint replacement, brain injury, etc.). Admission functional status is the expected value of the average of the sum 12 items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) at the facility level. Age is the age of the patient at the time of admission to the LTAC. The denominator is meant to reflect the expected motor functional change score at the facility, if the facility had the same distribution of CMGs (based on impairment type, functional status at admission, and age at admission). This adjustment procedure is an indirect standardization procedure (observed facility average/expected facility average).
Exclusions	This quality measure has following patient-level exclusion criteria: 1) Patients with incomplete stays: Rationale: It can be challenging to gather accurate discharge functional assessment data for patients who experience incomplete stays. Patients with incomplete stays include patients who are unexpectedly discharged to an acute-care setting (Inpatient Prospective Payment System or Inpatient Psychiatric Hospital or unit) because of a medical emergency or psychiatric condition; patients transferred to another LTCH; patients who leave the LTCH against medical advice; patients who die; and patients with a length of stay less than 3 days.	This quality measure has six patient-level exclusion criteria: 1) Patients with incomplete stays. Rationale: It can be challenging to gather accurate discharge functional status data for patients who experience incomplete stays. Patients with incomplete stays include patients who are unexpectedly discharged to an acute care setting (Short-stay Acute Hospital, Critical Access Hospital, Inpatient Psychiatric Facility, or Long-term Care Hospital) because of a medical emergency; patients who die or leave an Inpatient Rehabilitation Facility (IRF) against medical advice; and patients with a length of stay less than 3 days. 2) Patients who are independent with all	Excluded in the measure are patients who died in the SNF or patients less than 18 years old.	Patients age at admission less than 18 years old Patients who died in the SNF.	Patients age at admission less than 18 years old Patients who died in the LTAC.

	2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support	2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities	2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities	2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities
	2) Patients discharged to hospice: Rationale: Patients discharged to hospice are excluded because functional improvement may not be a goal for these patients. 3) Patients with progressive neurological conditions, including amyotrophic lateral sclerosis, multiple sclerosis, Parkinson's disease, and Huntington's chorea: Rationale: These patients are excluded because they may have functional decline or less predictable function trajectories. 4) Patients in coma, persistent vegetative state, complete tetraplegia, and locked-in syndrome: Rationale: The patients are excluded because they may have limited or less predictable mobility recovery. 5) Patients younger than age 21: Rationale: There is only limited evidence published about functional outcomes for individuals younger than 21. 6) Patients who are coded as independent on all the mobility items at admission: Rationale: These patients are excluded because no improvement in mobility skills can be measured with the mobility items used in this quality measure. Facility-level quality measure exclusion: For LTCHs with fewer than 20 patient stays, data for this quality measure are not publicly reported.	mobility activities at the time of admission. Rationale: Patients who are independent with all the mobility items (with the exception of the wheelchair items GG0170R and GG0170S) at the time of admission are assigned the highest score on all the mobility items, and thus, would not be able to show functional improvement on this same set of items at discharge. 3) Patients with the following medical conditions on admission: coma, persistent vegetative state; complete quadriplegia; locked-in syndrome or severe anoxic brain damage, cerebral edema or compression of brain. Rationale: These patients are excluded because they may have limited or less predictable mobility improvement with the selected mobility items. 4) Patients younger than age 21. Rationale: There is only limited evidence published about functional outcomes for individuals with Medicare who are younger than 21. 5) Patients discharged to hospice. Rationale: Patient goals may change during the IRF stay, and functional improvement may no longer be a goal for a patient discharged to hospice. 6) Patients who are not Medicare Part A and Medicare Advantage beneficiaries. Rationale: IRF-PAI data for patients not covered by the Medicare program are not submitted to the Centers for Medicare and Medicaid Services. Facility-level quality measure exclusion: For IRFs with fewer than 20 patient stays, data for this quality measure are not publicly reported.			
Exclusion Details	For each of the following exclusion criteria, we provide the data collection items used to identify patient records to be excluded. These items are on the LTCH CARE Data Set Version 4.00. 1) Patients with incomplete stays include patients who are unexpectedly discharged to an acute-care setting (Inpatient Prospective Payment System or Inpatient Psychiatric Hospital or unit) because of a medical emergency or psychiatric condition; patients transferred to another LTCH; patients who leave the LTCH against medical advice; patients	The following items are used to identify which patients are excluded from the quality measure calculations. These data elements are included on the current version of the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI), which is available at: http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/IRFPAI.html It can be challenging to gather accurate discharge functional status data for patients who experience incomplete stays. Patients with incomplete stays include patients who are unexpectedly discharged to	Living at discharge and age at admission are collected through the MDS.	Living at discharge and age at admission are collected through the MDS.	Living at discharge and age at admission are collected through OASIS.

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support	2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities	2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities	2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities
who die; and patients with a length of stay less than 3 days. Items used to identify these patient records: A2110. Discharge Location 04 = Hospital emergency department 05 = Short-stay acute hospital (IPPS) 06 = Long-term care hospital (LTCH) 08 = Psychiatric hospital or unit 12 = Discharged Against Medical Advice A0250. Reason for Assessment 11 = Unplanned discharge 12 = Expired Patients with a length of stay less than 3 days: We calculate length of stay using the following items on the LTCH CARE Data Set. A0220. Admission Date A0270. Discharge Date Length of stay is calculated as the Discharge Date minus the Admission Date (Discharge Date - Admission Date). Patient records with a length of stay less than 3 days are excluded. 2) Patients discharged to hospice Items used to identify these patient records: A2110. Discharge Location 10 = Hospice 3) Patients with progressive neurological conditions, including amyotrophic lateral sclerosis, multiple sclerosis, Parkinson's disease, and Huntington's chorea are excluded because these patients may have less predictable mobility recovery or functional decline may be expected. Items used to identify these patient records: I5450. Amyotrophic Lateral Sclerosis = 1 I5200. Multiple Sclerosis = 1, or I5300. Parkinson's Disease = 1, or I5250. Huntington´s Disease = 1. 4) Patients in coma, persistent vegetative state, severe anoxic brain damage, cerebral edema, or compression of brain, complete tetraplegia, and locked-in syndrome are excluded, because they may have limited or less predictable mobility recovery. Items used to identify these patient records: B0100. Comatose = 1, or; I5101. Complete Tetraplegia = 1, or;	an acute care setting (Short-stay Acute Hospital, Critical Access Hospital, Inpatient Psychiatric Facility, or Long-term Care Hospital), because of a medical emergency; patients discharged to a hospice; patients who die or leave an Inpatient Rehabilitation Facility (IRF) against medical advice; and patients with a length of stay less than 3 days. Items used to identify these patient records: 1) Patients with incomplete stays. Patients with a length of stay less than 3 days: We calculate length of stay using the following items on the IRF-PAI. Length of stay is calculated as the Discharge Date minus the Admission Date (Discharge Date - Admission Date). Patient records with a length of stay of less than 3 days are excluded. Item 12. Admission Date. Item 40. Discharge Date. Item 41. Patient discharged against medical advice. This item is used to identify patients discharged against medical advice. Patient records with a response of "Yes = 1" are excluded. Item 44C. Was the patient discharged alive? This item is used to identify patients who died during the IRF stay. Patient records with a response of "No = 0" are excluded. 44D. Patient's discharge destination/living setting. This item is used to identify an incomplete stay. Specifically, the following responses will be used to identify patients with incomplete stays: Short-term General Hospital = 02 Long-Term Care Hospital = 63 Inpatient Psychiatric Facility = 65 Critical Access Hospital = 66. 2) Patients who are independent with all mobility activities at the time of admission. Patients who are independent with all the mobility items at the time of admission are assigned the highest score on all the mobility items, thus, would not be able to show functional improvement (i.e., a higher score)on this same set of items at discharge. The following items and scores are used to identify and exclude patient records: Mobility items			

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	I5460. Locked-In State = 1, or; I5470. Severe Anoxic Brain Damage, Cerebral Edema, or Compression of Brain. 5) Patients younger than 21 at the time of admission Items used to identify these patient records: A0900. Birth Date A0220. Admission Date 6) Patients who are coded as independent (score = 06) on all the mobility items at admission Items used to identify these patient records at admission: GG0170A. Roll left and right = 06, and; GG0170B. Sit to lying = 06, and; GG0170C. Lying to sitting on side of bed = 06, and; GG0170D. Sit to stand, = 06 and, GG0170E. Chair/bed-to-chair transfer, = 06, and; GG0170F. Toilet transfer, = 06, and; GG0170J. Walk 50 feet with two turns = 06, and; GG0170K. Walk 150 feet = 06.	GG0170A. Roll left and right = 06, and GG0170B. Sit to lying = 06, and GG0170C. Lying to sitting on side of bed = 06, and GG0170D. Sit to stand = 06, and GG0170E. Chair/bed-to-chair transfer = 06, and GG0170F. Toilet transfer = 06, and GG0170G. Car transfer = 06, and GG0170I. Walk 10 feet = 06, and GG0170J. Walk 50 feet with two turns = 06, and GG0170K. Walk 150 feet = 06, and GG0170L. Walking 10 feet on uneven surfaces = 06, and GG0170M. 1 step (curb) = 06, and GG0170N. 4 steps = 06, and GG0170O. 12 steps = 06, and GG0170P. Picking up object = 06. 3) Patients with the following medical conditions on admission: coma; persistent vegetative state; complete quadriplegia; locked-in syndrome; and severe anoxic brain damage, cerebral edema or compression of the brain. The following items will be used to identify patients with these conditions: 21A. Impairment Group. 0004.1221 - Spinal Cord Dysfunction, Non-Traumatic: Quadriplegia Complete, C1-C4 0004.1222 - Spinal Cord Dysfunction, Non-Traumatic: Quadriplegia Complete, C5-C8 0004.2221 - Spinal Cord Dysfunction, Traumatic: Quadriplegia Complete, C1-C4 0004.2222 - Spinal Cord Dysfunction, Traumatic: Quadriplegia Complete, C5-C8 22. Etiologic Diagnosis. This item is used to determine a patient´s etiologic problem that led to the condition for which the patient is receiving rehabilitation. The following Hierarchical Condition Categories (HCCs) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes will be used to identify and exclude records of patients with these conditions: HCC 80. Coma, Brain Compression/Anoxic Damage ICD-10-CM. G82.51 Quadriplegia, C1-C4 complete			

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		ICD-10-CM. G82.53 Quadriplegia, C5-C7 complete			
		ICD-10-CM. S14.11xx Quadriplegia, Complete lesion at Cx(1-8) level of cervical spinal cord, initial encounter or subsequent encounter, or sequela			
		ICD-10-CM. G83.5. Locked-in state			
		24. Comorbid Conditions. This item is used to exclude selected comorbidities. The following Hierarchical Condition Categories (HCCs) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes will be used to exclude records of patients with these conditions:			
		HCC 80. Coma, Brain Compression/Anoxic Damage			
		ICD-10-CM. G82.51 Quadriplegia, C1-C4 complete			
		ICD-10-CM. G82.53 Quadriplegia, C5-C7 complete			
		ICD-10-CM. S14.11xx Quadriplegia, Complete lesion at Cx(1-8) level of cervical spinal cord, initial encounter or subsequent encounter, or sequela			
		ICD-10-CM. G83.5. Locked-in state			
		4) Patients younger than age 21. These items are used to calculate age, and patients who are younger than 21 years of age at the time of admission are excluded.			
		6. Birth Date			
		12. Admission Date			
		Age is calculated as the Admission Date minus the Birth Date (Admission Date - Birth Date). Patients younger than 21 are excluded.			
		5) Patients discharged to hospice.			
		44D. Patient's discharge destination/living setting. This item is used to identify patients discharged to hospice. The following responses are used:			
		Hospice (home) = 50			
		Hospice (institutional facility) = 51			
		6) Patients who are not Medicare Part A and Medicare Advantage beneficiaries			
		20A. Primary Source = 99 - Not Listed AND			
		20B. Secondary Source = 99 - Not Listed			
Risk Adjustment	Statistical risk model	Statistical risk model	Stratification by risk category/subgroup	Stratification by risk category/subgroup	Stratification by risk category/subgroup
Stratification	This measure does not use stratification.	Not applicable	See definition of the SNF-CMGs in the excel file provided.	See definition of the SNF-CMGs in the excel file provided.	See definition of the CMGs in the excel file provided.

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Type Score	Continuous variable, e.g. average better quality = higher score	Continuous variable, e.g. average better quality = higher score	Ratio better quality = higher score	Ratio better quality = higher score	Ratio better quality = higher score
Algorithm	We provide the detailed calculation algorithm in an attachment entitled "LTCH Detailed Function QM Specifications 2632 01-07-2019" included in the Appendix. The detailed calculation algorithm is provided to the public in the document entitled IRF Measure Calculations and Reporting User's Manual. The current version of this document is available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/IRF-Quality-Reporting-Program-Measures-Information-.html The following are the key steps used to calculate the measure: 1) Sum the scores of the admission mobility items to create an admission mobility score for each patient. Mobility items that contained 'activity not attempted' codes (07. Patient refused, 09. Not applicable, 10. Not attempted due to environmental limitations, and 88. Not attempted due to medical condition or safety concerns) or were skipped, dashed, or missing are recoded to 01. Dependent (range: 8 to 48). 2) Sum the scores of the discharge mobility items to create a discharge mobility score for each patient. Mobility items that contained 'activity not attempted' values (07. Patient refused, 09. Not applicable, 10. Not attempted due to environmental limitations, and 88. Not attempted due to medical condition or safety concerns) or were skipped, dashed, or missing are recoded to 01. Dependent (range: 8 to 48). 3) Identify the records of patients who meet the exclusion criteria and exclude these patient records from analyses. 4) Calculate the difference between the admission mobility score (from step 1) and the discharge mobility score (from step 2) for each patient to create a change in mobility score for each patient. 5) Calculate an expected change in mobility score for each patient using regression coefficients from national data and each patient's admission	We provide the detailed calculation algorithm in an attachment entitled "IRF Detailed Function QM Specifications 2634 01-07-2019" included in the Appendix. The detailed calculation algorithm is provided to the public in the document entitled IRF Measure Calculations and Reporting User's Manual. The current version of this document is available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/IRF-Quality-Reporting-Program-Measures-Information-.html The following are key steps used to calculate the measure: 1) Sum the scores of the admission mobility items to create an admission mobility score for each patient, after 'activity not attempted' codes (07. Patient refused, 09. Not applicable, 10. Not attempted due to environmental limitations, and 88. Not attempted due to medical condition or safety concerns), skip codes ('^') and missing data ('-') are recoded, and for patients who do not walk on admission and discharge, walking items have been recoded to use wheelchair mobility item codes. (range: 15 to 90). 2) Sum the scores of the discharge mobility items to create a discharge mobility score for each patient, after 'activity not attempted' values (07. Patient refused, 09. Not applicable, 10. Not attempted due to environmental limitations, and 88. Not attempted due to medical condition or safety concerns), skip codes ('^') and missing data ('-') are recoded. As described in step 1, for patients who do not walk on admission and discharge, use wheelchair mobility item codes instead of walking codes. (range: 15 to 90). 3) Identify the records of patients who meet the exclusion criteria and exclude them from analyses. 4) Calculate the difference between the admission mobility score (from step 1) and the discharge mobility score (from step 2) for each patient to create a change in mobility score for each patient. 5) Calculate an expected change in mobility score for each patient using regression	1. Identify all short term rehabilitation patients during the assessment time frame (12 months). 2. Exclude any patients who died in the SNF. 3. Exclude any patients who are less than 18 at the time of admission to the SNF. 4. Calculate the total mobility change score for each of the remaining patients (sum of change at the patient level for all items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.) 4. Transform the patient level functional change scores to the rasch derived value (as stated in the excel file). 5. Calculate the average rasch derived mobility change score at the facility level. 6. Using national data and previously described adjustment procedure, calculate the facility´s expected rasch derived average mobility change score for the time frame (12 months). 7. Calculate the ratio outcome by taking the observed facility average mobility change score/facility´s national expected mobility change score. 135063	1. Identify all short term rehabilitation patients during the assessment time frame (12 months). 2. Exclude any patients who died in the SNF. 3. Exclude any patients who are less than 18 at the time of admission to the SNF. 3. Calculate the total motor change score for each of the remaining patients (sum of change at the patient level for all items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.) 4. Transform the patient level functional change scores to the rasch derived value (as stated in the attached excel file). 5. Calculate the average rasch derived motor change score at the facility level. 6. Using national data and previously described adjustment procedure, calculate the facility's expected rasch derived average motor change score for the time frame (12 months). 7. Calculate the ratio outcome by taking the observed facility average motor change score/facility's national expected motor change score. 135063	1. Identify all patients during the assessment time frame (12 months). 2. Exclude any patients who died in the LTAC. 3. Exclude any patients who are less than 18 at the time of admission to the LTAC. 3. Calculate the total motor change score for each of the remaining patients (sum of change at the patient level for all items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, and Memory.) 4. Transform the patient level functional change scores to the rasch derived value (as stated in excel file). 5. Calculate the average rasch derived motor change score at the facility level. 6. Using national data and previously described adjustment procedure, calculate the facility's expected rasch derived average motor change score for the time frame (12 months). 7. Calculate the ratio outcome by taking the observed facility average motor change score/facility's national expected motor change score. 135063

	2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support	2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities	2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities	2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities
	characteristics (risk adjustors). 6) Calculate an average observed change in mobility score for each LTCH (using the patient data calculated in step 4). This is the facility-level observed change in mobility score. 7) Calculate an average expected change in mobility score for each LTCH (using the patient data calculated in step 5). This is the facility-level expected change in mobility score. 8) Subtract the facility-level expected change score from the facility-level observed change score to determine the difference in scores (difference value). A difference value that is 0 indicates the observed and expected scores are equal. An observed minus expected difference value that is higher than 0 (positive) indicates that the observed change score is greater (better) than the expected change score. An observed minus expected difference value that is less than 0 (negative) indicates that the observed change score is lower (worse) than the expected change score. 9) Add the national average change in mobility score to each IRF's difference value (from step 8). This is the risk-adjusted mean change in mobility score. Each patient´s ability to complete each mobility activity (item) is rated by a clinician using the following 6-level rating scale: level 06 - Independent level 05 - Setup or clean up assistance level 04 - Supervision or touching assistance level 03 - Partial/moderate assistance level 02 - Substantial/maximal assistance level 01 - Dependent The 8 mobility items are: GG0170A. Roll left and right GG0170B. Sit to lying GG0170C. Lying to sitting on side of bed GG0170D. Sit to stand GG0170E. Chair/bed-to-chair transfer GG0170F. Toilet transfer GG0170J. Walk 50 feet with two turns GG0170K. Walk 150 feet 138203| 141592	coefficients from national data and each patient's admission characteristics (risk adjustors). 6) Calculate an average observed change in mobility score for each IRF (using the patient data calculated in step 4). This is the facility-level observed change in mobility score. 7) Calculate an average expected change in mobility score for each IRF (using the patient data from step 5). This is the facility-level expected change in mobility score. 8) Subtract the facility-level expected change score from the facility-level observed change score to determine the difference in scores (difference value). A difference value that is 0 indicates the observed and expected scores are equal. An observed minus expected difference value that is higher than 0 (positive) indicates that the observed change score is greater (better) than the expected change score. An observed minus expected difference value that is less than 0 (negative) indicates that the observed change score is lower (worse) than the expected change score. 9) Add the national average change in mobility score to each IRF's difference value (from step 8). This is the risk-adjusted mean change in mobility score. Each patient´s ability to complete each mobility activity (item) is rated by a clinician using the following 6-level rating scale: level 06 - Independent level 05 - Setup or clean up assistance level 04 - Supervision or touching assistance level 03 - Partial/moderate assistance level 02 - Substantial/maximal assistance level 01 - Dependent The mobility items are: GG0170A. Roll left and right GG0170B. Sit to lying GG0170C. Lying to sitting on side of bed GG0170D. Sit to stand GG0170E. Chair/bed-to-chair transfer GG0170F. Toilet transfer GG0170G. Car transfer GG0170I. Walk 10 feet GG0170J. Walk 50 feet with two turns GG0170K. Walk 150 feet GG0170L. Walking 10 feet on uneven surfaces GG1070M. 1 step (curb) GG0170N. 4 steps			

	2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support	2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities	2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities	2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities
		GG0170O. 12 steps GG0170P. Picking up object GG0170R. Wheel 50 feet with two turns (for patients who do not walk at admission and discharge) GG0170S. Wheel 150 feet (for patients who do not walk at admission and discharge) 138203| 135810| 141592			
Submission items	5.1 Identified measures: 0423 : Functional status change for patients with Hip impairments 0425 : Functional status change for patients with lumbar impairments 0429 : Change in Basic Mobility as Measured by the AM-PAC: 0422 : Functional status change for patients with Knee impairments 0424 : Functional status change for patients with Foot and Ankle impairments 0428 : Functional status change for patients with General orthopaedic impairments 0167 : Improvement in Ambulation/locomotion 0175 : Improvement in bed transferring 5a.1 Are specs completely harmonized? Yes 5a.2 If not completely harmonized, identify difference, rationale, impact: Quality measures NQF # 0167, NQF # 0175, and NQF # 0174 use a single function activity to indicate whether patients have made functional improvement. These measures apply to home health patients, which is a different target population than LTCH patients. The quality measure NQF #0429 Change in basic mobility uses several function activities to define mobility; the measure does not list LTCH patients as a target population. NQF measures # 0422, #0423, #0424, #0425, #0426, #0427, and #0428 apply to outpatients, which is a different population than LTCH patients. 5b.1 If competing, why superior or rationale for additive value: Not applicable	5.1 Identified measures: 0423 : Functional status change for patients with Hip impairments 0425 : Functional status change for patients with lumbar impairments 0426 : Functional status change for patients with Shoulder impairments 0427 : Functional status change for patients with elbow, wrist and hand impairments 0429 : Change in Basic Mobility as Measured by the AM-PAC: 0422 : Functional status change for patients with Knee impairments 0424 : Functional status change for patients with Foot and Ankle impairments 0428 : Functional status change for patients with General orthopaedic impairments 0167 : Improvement in Ambulation/locomotion 0175 : Improvement in bed transferring 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: The listed measures conceptually address the same topic, function, but the target populations for these measures are different. Several measures are used in outpatients and home health care settings. 5b.1 If competing, why superior or rationale for additive value: Not applicable	5.1 Identified measures: 2612 : CARE: Improvement in Mobility 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: While the CARE items and the change in mobility items measure the same construct of functional (in)dependence, there are some key differences included in the measures, and in the measurement of the items. The mobility measure, submitted by UDS includes the following items: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. The CARE items included in the measure submitted by AHCA include: : Roll left and right, Sit to lying, Lying to sitting on side of bed, Sit to stand, Chair/bed-to-chair transfer, Toilet transfer, Car transfer, Walk 10 feet, Walk 50 feet with 2 turns, Walk 150 feet, Walking 10 feet on uneven surfaces, 1 step, 4 steps, 12 steps, Pick up object. Once again there is great overlap in the items, There is great overlap between the items in the two measures, particularly in the transfer items, locomotion, and stairs. However while our measure contains only four items, the CMS measure contains 14 items. While our measure has the one locomotion item, for instance, the ACHA measure has four. Similarly, our measure contains one item for stairs, while the CMS measure contains three. This becomes burdensome on the provider to have to collect an additional 10 items and it hasn't been proven that there is additional value or specificity in the measure. Rasch analysis shows us that more items do not always mean better measurement. Finally, the UDSMS change in mobility measure is the exact same measure (same items, same rating scale, same adjustment) used in SNF, IRF and LTAC, offering consistency in measuring patient function across PAC venues, which has been an interest for PAC and is a current objective of the IMPACT ACT.	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value:	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value:

	2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support	2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities	2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities	2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities
			5b.1 If competing, why superior or rationale for additive value: The functional items have been collected in SNFs for over 20 years. This allows for a historical perspective of function in the SNFs that the CARE items do not allow. In addition, the these items have been used in inpatient rehabilitation facilities for over 30 years, and therefore, a comparison in functional gains between IRFs and SNFs can be easily made should this measure be utilized in both venues of care.		

Comparison of NQF 0167, 0174, and 0175 with other functional status measures (NQF 2287, 2321, 2632, 2634, 2774, 2775, 2776, 2778, 2612, and 2613) — continued

	2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities	2612 CARE: Improvement in Mobility	2613 CARE: Improvement in Self Care
Steward	Uniform Data System for Medical Rehabilitation, a	American Health Care Association	American Health Care Association
Description	Change in rasch derived values of mobility function from admission to discharge among adult LTAC patients aged 18 years and older who were discharged alive. The time frame for the measure is 12 months. The measure includes the following 4 mobility items:Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.	The measure calculates a skilled nursing facility's (SNFs) average change in mobility for patients admitted from a hospital who are receiving therapy. The measure calculates the average change in mobility score between admission and discharge for all residents admitted to a SNF from a hospital or another post-acute care setting for therapy (i.e., PT or OT) regardless of payor status. This is a risk adjusted outcome measure, based on the mobility subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure is calculated on a rolling 12 month, average updated quarterly.	The measure calculates a skilled nursing facility's (SNFs) average change in self care for patients admitted from a hospital who are receiving therapy. The measure calculates the average change in self care score between admission and discharge for all residents admitted to a SNF from a hospital or another post-acute care setting for therapy (i.e., PT or OT) regardless of payor status. This is a risk adjusted outcome measure, based on the self care subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure is calculated on a rolling 12 month, average updated quarterly.
Type	Outcome	Outcome	Outcome
Data Source	Electronic Health Records, Other, Paper Medical Records Functional Change Form, as seen in the appendix. Available in attached appendix at A.1 Attachment NQF_Submission_Mobility-635749871757956568.xlsx	Electronic Health Records, Other Resident Assessment Instrument Minimum Data Set (MDS) version 3.0 Continuity Assessment and Record Evaluation (CARE) Tool; Mobility subscale Available in attached appendix at A.1 No data dictionary	Electronic Health Records, Other Resident Assessment Instrument Minimum Data Set (MDS) version 3.0 Continuity Assessment and Record Evaluation (CARE) tool; Self Care subscale Available in attached appendix at A.1
Level	Facility	Facility	Facility
Setting	Post-Acute Care	Nursing Home / SNF	Nursing Home / SNF
Numerator Statement	Average change in rasch derived mobility functional score (Items Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) from admission to discharge at the facility level. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the facility or patients who died within the facility are excluded.	The measure assesses the change in mobility. The numerator is the risk adjusted sum of the change in the CARE Tool mobility subscale items between admission and discharge for each individual admitted from a hospital or another post acute care setting regardless of payor status and are receiving therapy (PT or OT) for any reason in a skilled nursing center.	This outcome measure assesses the change in self-care. The numerator is the risk adjusted sum of the change in the CARE Tool self care subscale items between admission and discharge for each individual admitted from a hospital or another post-acute care setting regardless of payor status and are receiving therapy (PT or OT) for any reason in a skilled nursing center.
Numerator Details	The target population is all LTAC patients, at least 18 years old, who did not die in the LTAC. The numerator is the average change in rasch derived mobility functional score from admission to discharge for each patient at the facility level, including items: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as: (sum of change at the patient level for all items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) / total number of patients).	The numerator includes all residents admitted from a hospital or another post acute care setting that receive any PT or OT therapy for any reason in a SNF that have a completed mobility CARE tool assessment at admission and discharge (see denominator definition below). The mobility items used from the CARE tool are listed below and rated on a 1-6 scale (see Appendix for copy of the CARE Tool assessment). The items included in the CARE Tool Mobility subscale include: • B1. Lying to Sitting on Side of Bed • B2. Sit to Stand • B3. Chair/Bed to Chair Transfer • B4. Toilet Transfer • B5a & B5b. Walking or Wheelchair Mobility • C3. Roll left / right	The numerator includes all residents admitted from a hospital or another post-acute care setting that receive any PT or OT therapy for any reason in a SNF that have a completed CARE Tool self care subscale assessment at admission and discharge (see denominator definition below). The self care items used from the CARE tool are listed below and rated on a 1-6 scale (see Appendix for CARE Tool). The items included in the CARE Tool self care subscale include: • A1. Eating • A3. Oral Hygiene • A4. Toilet Hygiene • A5. Upper Body Dressing • A6. Lower Body Dressing • C1. Wash Upper Body • C2. Shower / Bathe

	2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities	2612 CARE: Improvement in Mobility	2613 CARE: Improvement in Self Care
		• C4. Sit to Lying • C5. Picking up object • C7a. One Step Curb • C7b. Walk 50 ft. with Two Turns • C7c. Walk 12 Steps. • C7d. Walk Four Steps • C7e. Walking 10 ft. on Uneven Surface • C7f. Car Transfer The numerator is a facility's average risk adjusted change score on the mobility component of the CARE tool. The risk adjusted average change score is calculated in several steps: Step 1: Each individual's admission and discharge mobility scale score is calculated. Items rated as S. Not attempted due to safety concerns, A. Task attempted but not completed, N. Not applicable and P. Patient Refused were recoded to one. For each individual, the ratings for all the mobility items on the CARE tool at admission are summed and transformed to a 0-100 scale. The same is done for the discharge assessment. Step 2: Each individual's unadjusted change score is calculated by taking the admission score minus the discharge score. Step 3: The individual's unadjusted change score is risk adjusted (see risk adjustment section) Step 4: The facilities risk adjusted change score is the sum of all the individual's risk adjusted change scores divided by the denominator.	• C6. Putting on / taking off footwear The numerator is facility's average risk adjusted change score on the self care subscale of the CARE tool. The risk adjusted average change score is calculated in several steps: Step 1: Each individual's admission and discharge self care subscale score is calculated. Items rated as S. Not attempted due to safety concerns, A. Task attempted but not completed, N. Not applicable and P. Patient Refused were recoded to one on a six point rating scale (e.g. dependent). For each individual, the ratings for all the self care items on the CARE tool at admission are summed and transformed to a 0-100 scale. The same is done for the discharge assessment. Step 2: Each individual's unadjusted change score is calculated by taking the admission score minus the discharge score. Step 3: The individual's unadjusted change score is risk adjusted (see S.14) Step 4: The facility's risk adjusted change score is the sum of all the individual's risk adjusted change scores divided by the denominator.
Denominator Statement	Facility adjusted adjusted expected change in rasch derived values, adjusted at the Case Mix Group level.	The denominator includes all residents admitted to a SNF from a hospital or another post-acute care setting who receive either PT or OT therapy for any reason during their stay regardless of payor status, have a completed mobility CARE tool assessment at admission and discharge and do not meet any of the exclusion criteria. The mobility items used from the CARE tool are listed below and rated on a 1-6 scale (see Appendix for copy of the mobility CARE tool assessment). The items included in the CARE Tool Mobility subscale include: • B1. Lying to Sitting on Side of Bed • B2. Sit to Stand • B3. Chair/Bed to Chair Transfer • B4. Toilet Transfer • B5a & B5b. Walking or Wheelchair Mobility • C3. Roll left / right • C4. Sit to Lying • C5. Picking up object • C7a. One Step Curb • C7b. Walk 50 ft. with Two Turns • C7c. Walk 12 Steps. • C7d. Walk Four Steps • C7e. Walking 10 ft. on Uneven Surface • C7f. Car Transfer	The denominator includes all residents admitted to a SNF from a hospital or another post-acute care setting who receive either PT or OT therapy for any reason during their stay regardless of payor status, have a completed self care subscale of the CARE Tool at admission and discharge and do not meet any of the exclusion criteria and do not have missing data. The self care items used from the CARE tool are listed below and rated on a 1-6 scale (see Appendix for CARE Tool). The items included in the CARE Tool self care subscale include: • A1. Eating • A3. Oral Hygiene • A4. Toilet Hygiene • A5. Upper Body Dressing • A6. Lower Body Dressing • C1. Wash Upper Body • C2. Shower / Bathe • C6. Putting on / taking off footwear
Denominator Details	The target population is all LTAC patients, at least 18 years old, who did not die in the LTAC. Impairment type is defined as the primary medical reason for the LTAC stay (such as stroke, joint replacement, brain injury, etc.). Admission functional status is the expected value of the average of the sum 4 items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) at the facility level. Age is the age of the patient at the time of admission to the LTAC. The denominator is meant to reflect the expected Mobility functional change score at the facility, if the facility had the same distribution of CMGs (based on impairment type, functional status at admission,and age at admission). This adjustment procedure is an indirect standardization procedure (observed facility average/expected facility average).	The denominator includes all residents admitted to a SNF who are receiving any PT or OT therapy for any reason. The denominator is based on admission from any hospital or post-acute care setting and is determined using information from MDS item "A1800 Entered From" coded as "03 Acute Care Hospital" or "02 Another nursing home or swing bed" or "05 inpatient rehabilitation facility" or "09 Long Term Care Hospital" regardless of payor status. They must receive either PT or OT therapy during their stay. A resident's stay is defined as an episode of care from admissions to discharge from the facility or discharge from therapy services (defined as completing a discharge CARE tool assessment). Overall, approximately 85% of all admissions from a hospital receive either PT or OT therapy based on SNF Part A claims (or MDS 3.0 data).	The denominator includes all residents admitted to a SNF who are receiving any PT or OT therapy for any reason. The denominator is based on admission from any hospital or post-acute care setting and is determined using information from MDS item "A1800 Entered From" coded as "03 Acute Care Hospital" or "02 Another nursing home or swing bed" or "05 inpatient rehabilitation facility" or "09 Long Term Care Hospital (LTCH)", regardless of payor status. They must receive either PT or OT therapy during their stay. A resident's stay is defined as an episode of care from admissions to discharge from the facility or discharge from therapy services (defined as completing a discharge CARE Tool assessment).
Exclusions	Excluded in the measure are patients who died in the LTAC or patients less than 18 years old.	Patients are excluded for two broad reasons: 1. if they have conditions where improvement in mobility is very unlikely,	Individual patients are excluded for two broad reasons:

	2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities	2612 CARE: Improvement in Mobility	2613 CARE: Improvement in Self Care
		OR 2. have missing data necessary to calculate the measure Additionally, facilities with denominator size of fewer than 30 patients during a 12 month period are excluded from reporting their data.	1. if they have conditions where improvement in self-care is very unlikely, OR 2. have missing data necessary to calculate the measure Additionally, facilities with denominator size of fewer than 30 patients during a 12 month period are excluded from reporting of their data.
Exclusion Details	Living at discharge and age at admission are collected through OASIS	Individuals with conditions where improvement in mobility (as determined by a panel of expert therapists) is very unlikely were excluded based on information from the admission MDS 3.0 assessment. Individuals with one of the following MDS 3.0 items marked as yes were excluded: • Ventilator (O0100F1 =1 or O0100F2 =1) • Coma (B0100 =1) • Quadriplegic (I5100=1) • Hospice (O0100K1 = 1) In addition, we also excluded individuals whose age is less than 18 years. Overall, these exclusions resulted in 1.1% of all admissions being excluded. Missing data also resulted in individuals being excluded • Missing a discharge CARE Tool assessment (this resulted when individuals died or were hospitalized during their SNF stay) resulted in patients being excluded since one could not calculate a change from admission. Nationally approximately 21.6% of admissions to a SNF will be hospitalized during their therapy stay and 4.5% will die (based on analysis of SNF part A claims from 2009-2011). • Missing data on individual CARE Tool mobility assessment items on at least one item occurred 27.2% of the time. Approximately a third of all missing data related to just three items C7c walking 12 steps; C7d walking 4 steps and C7f car transfer but did not differ significantly between admission and discharge assessments. We did not impute any missing data for mobility items.	Individuals with conditions where improvement in self care (as determined by a panel of expert therapists) is very unlikely were excluded based on information from the admission MDS 3.0 assessment. Individuals with one of the following MDS 3.0 items marked as yes were excluded: • Ventilator (O0100F1 =1 or O0100F2 =1) • Coma (B0100 =1) • Quadriplegic (I5100=1) • Hospice (O0100K1 = 1) In addition, we also excluded individuals whose age is less than 18 years. Overall, these exclusions resulted in 1.1% of all admissions being excluded. Missing data also resulted in individuals being excluded, details are as follows: • Missing a discharge CARE Tool assessment (this resulted when individuals died or were hospitalized during their SNF stay) resulted in patients being excluded since one could not calculate a change from admission. Nationally approximately 21.6% of admissions to a SNF will be hospitalized during their therapy stay and 4.5% will die (based on analysis of SNF part A claims from 2009-2011). • Missing data on individual items on either the admission or discharge CARE Tool assessment resulted in the individual being excluded from calculation. For self care items, this occurred 4.4% of the time. We did not impute any missing data for self care items.
Risk Adjustment	Stratification by risk category/subgroup	Statistical risk model	Statistical risk model
Stratification	See definition of the CMGs in the excel file provided.	Not Applicable	Not Applicable
Type Score	Ratio better quality = higher score	Continuous variable, e.g. average better quality = higher score	Continuous variable, e.g. average better quality = higher score
Algorithm	1. Identify all patients during the assessment time frame (12 months). 2. Exclude any patients who died in the LTAC. 3. Exclude any patients who are less than 18 at the time of admission to the LTAC. 3. Calculate the total mobility change score for each of the remaining patients (sum of change at the patient level for all items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.) 4. Transform the patient level functional change scores to the rasch derived value (as stated in excel file). 5. Calculate the average rasch derived mobility change score at the facility level. 6. Using national data and previously described adjustment procedure, calculate the facility's expected rasch derived average mobility change score for the time frame (12 months). 7. Calculate the ratio outcome by taking the observed facility average mobility change score/facility's national expected mobility change score. 135063	The facility-level mobility improvement scores are calculated using the following 15 steps. Step 1. Choose the 12 month window for which we will select episodes. This is the four consecutive calendar quarters ending with the most recent calendar quarter for which both MDS data and CARE Tool data are available for use in the measure. Step 2. Identify all MDS discharge assessments (in which we understand the CARE Tool items will be embedded) with a discharge date that fell within the 12 month window identified in Step 1. Step 3. For each MDS tool discharge assessment identified in Step 2, identify the corresponding MDS admission assessment (in which we understand the CARE Tool items will be embedded). An MDS assessment is identified as an admission assessment if A0310F == "01" (entry record). Note that the admission date may lie before the 12 month window defined in Step 1. The period of time from the admission date (corresponding with the MDS admission assessment) through to the discharge date (corresponding with the MDS discharge assessment) is called an "episode". If no MDS admission assessment was found, discard the discharge assessment from all subsequent steps. Step 4. Identify all MDS admission assessments that indicate the admission to the SNF was from a hospital, another SNF or IRF. An MDS admission assessment indicates that the SNF admission was from a hospital when MDS item "A1800 Entered From" coded as "03 Acute Care	The facility-level self care improvement scores are calculated using the following 14 steps. Step 1. Choose the 12 month window for which we will select episodes. This is the four consecutive calendar quarters ending with the most recent calendar quarter for which both MDS data and CARE tool data are available for use in the measure. Step 2. Identify all MDS discharge assessments (in which we understand the CARE tool items will be embedded) with a discharge date that fell within the 12 month window identified in Step 1. Step 3. For each MDS tool discharge assessment identified in Step 2, identify the corresponding MDS admission assessment (in which we understand the CARE tool items will be embedded). An MDS assessment is identified as an admission assessment if A0310F == "01" (entry record). Note that the admission date may lie before the 12 month window defined in Step 1. The period of time from the admission date (corresponding with the MDS admission assessment) through to the discharge date (corresponding with the MDS discharge assessment) is called an "episode". If no MDS admission assessment was found, discard the discharge assessment from all subsequent steps. Step 4. Identify all MDS admission assessments that indicate the admission to the SNF was from the hospital, another SNF or IRF. An MDS admission assessment indicates that the SNF admission was from a hospital when MDS item "A1800 Entered From" coded as "03 Acute Care Hospital" or "02 Another nursing home or swing bed" or "05 inpatient rehabilitation facility" of "09 Long Term Care

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	Hospital" or "02 Another nursing home or swing bed" or "05 inpatient rehabilitation facility" or "09 Long Term Care Hospital". The MDS item A1600 indicates the date of entry to the SNF. Step 5. For any admission or discharge CARE Tool item (that enters the calculation of the mobility improvement scores) with letter code "S" (activity not attempted due to safety concerns), A. Task attempted but not completed, N. Not applicable and P. Patient Refused were recoded to "1" on a six point rating scale (indicating full functional dependence). Step 6. Apply the mobility improvement measure's exclusions (see s.11), and exclude any episode that did not involve either physical or occupational therapy. The clinical measure exclusions are detailed in S.11 (Denominator exclusion details and codes). The exclusion of episodes not involving either occupational or physical therapy is as follows: We identify the patient as having received occupational therapy if on the MDS discharge assessment: The total number of minutes of occupational therapy in the last 7 days (O0400B1) is greater than zero; or The most recent occupational therapy regimen (starting on the date recorded in O0400B5, and ending on the date recorded in O0400B6) intersects the episode (beginning with the CARE admission assessment's admission date and ending with the CARE discharge assessment's discharge date). We identify the patient as having received physical therapy if on the MDS discharge assessment: The total number of minutes of physical therapy in the last 7 days (O0400C1) is greater than zero; or The most recent physical therapy regimen (starting on the date recorded in O0400C5, and ending on the date recorded in O0400C6) intersects the episode (beginning with the CARE admission assessment's admission date and ending with the CARE discharge assessment's discharge date). If the episode involves neither occupational nor physical therapy, as identified above, then exclude it from all subsequent steps in the calculation. Step 7. Map the CARE Tool B5a (walking) and B5b (wheeling) items to obtain a harmonious 1-6 score for all assessments, and recode walking items C7b, C7c, C7d and C7e to 1=dependent if resident cannot walk. First, consolidate the four sub-items B5a1, B5a2, B5a3 and B5a4 corresponding to different distances the resident can walk (if the patient can walk); and the four sub-items B5b1, B5b2, B5b3 and B5b4 corresponding to different distances the resident can wheel (if the patient cannot walk). To do this, use the crosswalk presented in Figure A1 in the Appendix. Call the resulting two items B5a and B5b. Second, consolidate the B5a and B5b items into a harmonious summary item called B5. To do this use the crosswalk presented in Figure A1 in the Appendix. This is the item used in the calculation of mobility outcome scores in the subsequent steps. Finally, if the patient is unable to walk (i.e., no values for the B5a and C7 items), recode each item C7a, C7b, C7d and C7e to 1 = dependent. Step 8. For each episode remaining after Step 6, using the CARE Tool items as transformed in Step 7, calculate a preliminary admission score and a discharge score as the sum of the values for the following CARE tool mobility items B1 (Lying to sitting on side of bed), B2 (Sit to stand), B3 (Chair/bed-to-chair transfer), B4 (Toilet transfer), B5 (Walking/wheeling), C3 (Roll left and right), C4 (Sit to lying), C7a (One step (curb)), C7b (Walking 50 feet with two turns), C7c (Walking 12 steps),	Hospital". The MDS item A1600 indicates the date of entry to the SNF. Step 5. For any admission or discharge CARE tool item (that enters the calculation of the self-care improvement scores) with letter code "S" (activity not attempted due to safety concerns), A. Task attempted but not completed, N. Not applicable and P. Patient Refused were recoded to "1" on a six point rating scale (indicating full functional dependence). Step 6. Apply the self care improvement measure's exclusions (see s.11), and exclude any episode that did not involve either physical or occupational therapy. The clinical measure exclusions are detailed in S.11 (Denominator exclusion details and codes). The exclusion of episodes not involving either occupational or physical therapy is as follows: We identify the patient as having received occupational therapy if on the MDS discharge assessment: The total number of minutes of occupational therapy in the last 7 days (O0400B1) is greater than zero; or The most recent occupational therapy regimen (starting on the date recorded in O0400B5, and ending on the date recorded in O0400B6) intersects the episode (beginning with the CARE admission assessment's date and ending with the CARE discharge assessment's date). We identify the patient as having received physical therapy if on the MDS discharge assessment: The total number of minutes of physical therapy in the last 7 days (O0400C1) is greater than zero; or The most recent physical therapy regimen (starting on the date recorded in O0400C5, and ending on the date recorded in O0400C6) intersects the episode (beginning with the CARE admission assessment's admission date and ending with the CARE discharge assessment's discharge date). If the episode involves neither occupational nor physical therapy, as identified above, then exclude it from all subsequent steps in the calculation. Step 7. For each episode remaining after Step 6, calculate a preliminary admission score and a discharge score as the sum of the values for the following CARE tool self care items A1 (Eating), A3 (Oral Hygiene), A4 (Toilet Hygiene), A5 (Upper Body Dressing), A6 (Lower Body Dressing), C1 (Wash Upper Body), C2 (Shower/Bath Self), C6 (Putting on/Taking off Footwear). Each of those 8 CARE tool items takes an integer value of 1, 2, 3, 4, 5 or 6, and so the preliminary admission score will be an integer between 8 and 48, and the preliminary discharge score will be an integer between 8 and 48. Step 8. For each episode, linearly transform the preliminary admission score and preliminary discharge score so that it lies in the range 1-100 using the following equation: ["transformed self-care admission score"]=2.475×["preliminary self-care admission score"]-18.8 ["transformed self-care discharge score"]=2.475×["preliminary self-care discharge score"]-18.8 Step 9. For each episode, calculate the episode-level change score by subtracting the transformed discharge score from the transformed admission score. Each score will lie between -99 and 99. Step 10. Calculate the national average change score as the simple mean of all episode-level change scores calculated in Step 9. Step 11. For each episode, calculate the predicted change score using the risk adjustment methodology detailed in S.15a. That is, having prepared the risk adjustment variables in the way described in S.15a, apply the equation: [predicted change score] = 25.98 -0.28×[patient is 85 years or older] -4.43×[dialysis while a patient] -3.83×[entered from SNF] -2.37×[oxygen while a patient] -1.06×[catheterization/ostomy] -2.87×[unhealed pressure ulcers] -7.12×[mental status] -3.33×[resident mood] -8.11×[psychiatric conditions] -

	2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities	2612 CARE: Improvement in Mobility	2613 CARE: Improvement in Self Care
		C7d (Walking four steps), C7e (Walking 10 feet on uneven surfaces). Each of those 12 CARE Tool items takes an integer value of 1, 2, 3, 4, 5 or 6, and so the preliminary admission score will be an integer between 12 and 72, and the preliminary discharge score will be an integer between 12 and 72. Step 9. For each episode, linearly transform the preliminary admission score and preliminary discharge score so that it lies in the range 1-100 using the following equation: ["transformed mobility admission score"]=1.65×["preliminary mobility admission score"]-18.8 ["transformed mobility discharge score"]=1.65×["preliminary mobility discharge score"]-18.8 Step 10. For each episode, calculate the episode-level change score by subtracting the transformed discharge score from the transformed admission score. Each score will lie between -99 and 99. Step 11. Calculate the national average change score as the simple mean of all episode-level change scores calculated in Step 10. Step 12. For each episode, calculate the predicted change score using the risk adjustment methodology detailed in S.15a. That is, having prepared the risk adjustment variables in the way described in S.15a, apply the equation: [predicted change score] = 33.61 -1.56×[patient is 85 years or older] -9.11×[dialysis while a resident] -5.08×[entered from SNF] -2.81×[oxygen while a patient] -4.23×[unhealed pressure ulcers] -8.85×[mental status] -4.75×[resident mood] -9.30×[psychiatric conditions] -6.91×[feeding tube or IV feeding] -4.10×[suctioning or tracheotomy] -3.98×[infections of the foot]. Step 13. For each episode, calculate the risk adjusted change score using the actual change score calculated in Step 10, the national average change score calculated in Step 11, and the predicted change score calculated in Step 12. The risk adjusted change score is: [risk adjusted change score] = ([national average change score] - [predicted change score]) + [actual change score]. Step 14. Exclude any facility that has fewer than 30 episodes for which we could calculate a risk adjusted change score. Step 15. For each facility remaining after Step 14, calculate its mobility improvement score as the simple mean of the risk adjusted change scores calculated in Step 13. 128727│ 142381│ 142370	4.05×[feeding tube or IV feeding] -5.43×[suctioning or tracheotomy] -2.76×[infections of the foot]. Step 12. For each episode, calculate the risk adjusted change score using the actual change score calculated in Step 9, the national average change score calculated in Step 10, and the predicted change score calculated in Step 11. The risk adjusted change score is: ["risk adjusted change score"]=(["national average change score"]-["predicted change score"])+["actual change score"] Step 13. Exclude any facility that has fewer than 30 episodes for which we could calculate a risk adjusted change score. Step 14. For each facility remaining after Step 13, calculate its self care improvement score as the simple mean of the risk adjusted change scores calculated in Step 12. 128727│ 142370
Submission items	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value:	5.1 Identified measures: 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: Not Applicable 5b.1 If competing, why superior or rationale for additive value: Not Applicable	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: Not Applicable

Comparison of NQF 0177 with NQF 0209

	0177 Improvement in pain interfering with activity	0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment
Steward	Centers for Medicare & Medicaid Services	National Hospice and Palliative Care Organization
Description	The percentage of home health episodes of care during which the frequency of the patient's pain when moving around improved.	Percentage of patients who report being uncomfortable because of pain at the initial assessment who, at the follow up assessment, report pain was brought to a comfortable level within 48 hours.
Type	Outcome	Outcome: PRO-PM
Data Source	Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Pain Interfering with Activity measure) available to consumers and to the general public through the Medicare Home Health Compare website. The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses. Available at measure-specific web page URL identified in S.1 Attachment isc_mstr_-V2.21.1-_FINAL_08-15-2017-636776316361945348.xlsx	Instrument-Based Data Data specific to measure (initial question on admission and follow-up question asked between 48 and 72 hours of admission) recorded by hospice. Data can be part of patient record or recorded and tracked separately. Data are aggregated and submitted quarterly by hospices to NHPCO which maintains a national data repository. NHPCO analyzes the data and produces a quarterly national level report for hospices as a source of comparative data for use in performance improvement initiatives. Available at measure-specific web page URL identified in S.1 No data dictionary
Level	Facility	Facility, Other
Setting	Home Care	Home Care
Numerator Statement	The number of home health episodes of care where the value recorded on the discharge assessment indicates less frequent pain at discharge than at start (or resumption) of care.	Patients whose pain was brought to a comfortable level (as defined by patient) within 48 hours of initial assessment.
Numerator Details	The number of home health episodes where the value recorded for the OASIS-C2 item M1242 ("Frequency of Pain Interfering with Activity") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less frequent pain interfering with activity at discharge.	Number of patients who replied "yes" when asked if their pain was brought to a comfortable level within 48 hours of initial assessment.
Denominator Statement	Number of home heath episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure- specific exclusions.	Patients who replied "yes" when asked if they were uncomfortable because of pain at the initial assessment.
Denominator Details	All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in pain interfering with activity or movement (i.e., were not at the optimal level of health status according to the "Frequency of Pain Interfering" OASIS-C2 item M1242).	Patients who are able to self report pain information and replied "yes" when asked if they were uncomfortable because of pain at the initial assessment.
Exclusions	All home health episodes where there is no pain reported at the start (or resumption) of care assessment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or the episodes is covered by one of the generic exclusions.	Patients who do not report being uncomfortable because of pain at initial assessment (i.e., patients who reply "no" to the question "Are you uncomfortable because of pain?" Patients under 18 years of age Patients who cannot self report pain Patients who are unable to understand the language of the person asking the initial and follow up questions
Exclusion Details	Home health episodes of care for which [1] at start/resumption of care OASIS item M1242 = 0, indicating the patient had no pain; OR [2] at start/ resumption of care, OASIS item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR [3] The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR [4] All episodes covered by the generic exclusions: a. Pediatric home health patients - less than 18 years of age as data are not collected for these patients. b. Home health patients receiving maternity care only. c. Home health clients receiving non-skilled care only. d. Home health patients for which neither Medicare nor Medicaid are a payment source. e. The episode of care does not end during the reporting period. f. If the agency sample includes fewer than 20 episodes after all other	Patients who replied 'No' to initial question: "Are you uncomfortable because of pain?" Patients under 18 years of age Patients who are unable to understand the language of the person asking the initial and follow up questions Patients who cannot self report pain

	0177 Improvement in pain interfering with activity	0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment
	patient-level exclusions are applied, or if the agency has been in operation less than six months, then the data is suppressed from public reporting on Home Health Compare.	
Risk Adjustment	Statistical risk model	No risk adjustment or risk stratification
Stratification	Not Applicable	None
Type Score	Rate/proportion better quality = higher score	Rate/proportion better quality = higher score
Algorithm	1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures. 2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions. Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08). Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients with no pain interfering with activity at start/resumption of care (M1242_PAIN_FREQ_ACTVTY_MVMT [1] = 00). Cases meeting the target outcome are those where the patient has less pain interfering with activity at discharge than at start/resumption of care: M1242_PAIN_FREQ_ACTVTY_MVMT[2] < M1242_PAIN_FREQ_ACTVTY_MVMT[1]. 3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria. 4. Risk Adjustment: The expected probability for a patient is calculated using the following formula: $P(x)=1/(1+e^{\wedge}(-(a+?¦?b\_i x\_i ?)))$ Where: P(x) = predicted probability of achieving outcome x a = constant parameter listed in the model documentation bi = coefficient for risk factor i in the model documentation xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors. Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows: $X(A\_ra)= X(A\_obs)+ X(N\_exp)-X(A\_exp)$ Where: X(Ara) = Agency risk-adjusted outcome measure value X(Aobs) = Agency observed outcome measure value X(Aexp) = Agency expected outcome measure value X(Nexp) = National expected outcome measure value If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 138874| 141015	Calculation of measure score: 1. Identify number of patients admitted to hospice services during the timeframe of interest (e.g., CY quarter). 2. Identify number of admitted patients who were able to respond to the question "Are you uncomfortable because of pain?" during the initial assessment and were not excluded because they met the exclusion criteria. 3. Identify the number of patients who responded "yes" to the question "Are you uncomfortable because of pain?" during the initial assessment. 4. Identify the number of patients who were contacted between 48 and 72 hours of the initial assessment and responded "yes" to the question: "Was your pain brought to a comfortable level within 48 hours of the start of hospice services?" This number is the numerator. 4. Divide the number of patients whose pain was brought to a comfortable level within 48 hours after initial assessment by the number of patients who reported they were uncomfortable because of pain at the initial assessment. 2. Multiply this number by 100 to get the hospice's score as a percent. This is the proportion of patients who reported being uncomfortable because of pain at initial assessment whose pain was brought to a comfortable level within 48 hours of the start of hospice services. NOTE: A Problem Score may also calculated as a complement to the measure score The Problem Score is calculated by dividing the number of patients whose pain was NOT brought to a comfortable level within 48 hours after the initial assessment by the number of patients who were uncomfortable on admission. Multiply this number by 100 to get the hospice's score as a percent. A lower score/percentile = better performance. The Problem Score is useful for assessing the proportion of patients for whom comfort was not achieved and subsequent root cause analysis for quality improvement purposes.
Submission items	5.1 Identified measures: 5a.1 Are specs completely harmonized? No 5a.2 If not completely harmonized, identify difference, rationale, impact: see 5b.1. 5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS for outcome measures reporting rates of improvement in pain identified two measures used in the hospice setting (NQF# 0676, 0677 - Percent of Residents Who Self-Report Moderate to Severe Pain). These measures are focused on inpatient (not homebound) patients, are calculated using data that are not currently collected in the home health setting, and do not consider the functional impact of pain.	5.1 Identified measures: 5a.1 Are specs completely harmonized? 5a.2 If not completely harmonized, identify difference, rationale, impact: 5b.1 If competing, why superior or rationale for additive value: N/A

Appendix E2: Related Measures (narrative format)

Comparison of NQF 0167, 0174, and 0175 with other functional status measures (NQF 2287, 2321, 2632, 2634, 2774, 2775, 2776, 2778, 2612, and 2613)

0167 Improvement in Ambulation/locomotion
0174 Improvement in bathing
0175 Improvement in bed transferring
2287 Functional Change: Change in Motor Score
2321 Functional Change: Change in Mobility Score

Steward

0167 Improvement in Ambulation/locomotion

Centers for Medicare & Medicaid Services

0174 Improvement in bathing

Centers for Medicare & Medicaid Services

0175 Improvement in bed transferring

Centers for Medicare & Medicaid Services

2287 Functional Change: Change in Motor Score

Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.

2321 Functional Change: Change in Mobility Score

Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.

Description

0167 Improvement in Ambulation/locomotion

Percentage of home health episodes of care during which the patient improved in ability to ambulate.

0174 Improvement in bathing

Percentage of home health episodes of care during which the patient got better at bathing self.

0175 Improvement in bed transferring

Percentage of home health episodes of care during which the patient improved in ability to get in and out of bed.

2287 Functional Change: Change in Motor Score

Change in rasch derived values of motor function from admission to discharge among adult inpatient rehabilitation facility patients aged 18 years and older who were discharged alive. The timeframe for the measure is 12 months. The measure includes the following 12 FIM® items:Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.

2321 Functional Change: Change in Mobility Score

Change in rasch derived values of mobility function from admission to discharge among adult inpatient rehabilitation facility patients aged 18 years and older who were discharged alive. The timeframe for the measure is 12 months. The measure includes the following 4 mobility FIM® items:Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.

Type

0167 Improvement in Ambulation/locomotion

Outcome

0174 Improvement in bathing

Outcome

0175 Improvement in bed transferring

Outcome

2287 Functional Change: Change in Motor Score

Outcome

2321 Functional Change: Change in Mobility Score

Outcome

Data Source

0167 Improvement in Ambulation/locomotion

Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collet valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Ambulation/Locomotion measure) available to consumers and to the general public through the Medicare Home Health Compare website.

The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses.

Available at measure-specific web page URL identified in S.1 Attachment isc_mstr_-V2.21.1-_FINAL_08-15-2017.xlsx

0174 Improvement in bathing

Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS-C2), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Bathing measure) available to consumers and to the general public through the Medicare Home Health Compare website.

Available at measure-specific web page URL identified in S.1 Attachment isc_mstr_-V2.21.1-_FINAL_08-15-2017_-_combined_worksheets-636686551475687631.xlsx

0175 Improvement in bed transferring

Electronic Health Records The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data to the OASIS repositories. Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Bed Transferring measure) available to consumers and to the general public through the Medicare Home Health Compare website.

The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses.

Available at measure-specific web page URL identified in S.1 Attachment isc_mstr_-V2.21.1-_FINAL_08-15-2017-636703732867896676.xlsx

2287 Functional Change: Change in Motor Score

Claims (Only), Other The collection instrument is the Functional Change: Change in Motor Score form attached as an appendix to this application.

Attachment NQF_Submission.xlsx

2321 Functional Change: Change in Mobility Score

Other The collection instrument is the Functional Change: Change in Motor Score form attached as an appendix to this application. The items for this measure are part of that form.

Attachment NQF_Submission_Mobility-635533914241373843.xlsx

Level

0167 Improvement in Ambulation/locomotion

Facility

0174 Improvement in bathing

Facility

0175 Improvement in bed transferring

Facility

2287 Functional Change: Change in Motor Score

Facility

2321 Functional Change: Change in Mobility Score

Facility

Setting

0167 Improvement in Ambulation/locomotion

Home Care

0174 Improvement in bathing

Home Care

0175 Improvement in bed transferring

Home Care

2287 Functional Change: Change in Motor Score

Home Health, Inpatient Rehabilitation Facility, Long Term Acute Care, Nursing Home / SNF

2321 Functional Change: Change in Mobility Score

Inpatient/Hospital, Post-Acute Care

Numerator Statement

0167 Improvement in Ambulation/locomotion

Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in ambulation locomotion at discharge than at start (or resumption) of care.

0174 Improvement in bathing

Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in bathing at discharge than at start (or resumption) of care.

0175 Improvement in bed transferring

Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in bed transferring at discharge than at start (or resumption) of care.

2287 Functional Change: Change in Motor Score

Average change in rasch derived motor functional score from admission to discharge at the facility level. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the IRF or patients who died within the IRF are excluded.

2321 Functional Change: Change in Mobility Score

Average change in rasch derived mobility functional score from admission to discharge at the facility level. Includes the following FIM items: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the facility or patients who died within the facility are excluded.

Numerator Details

0167 Improvement in Ambulation/locomotion

The number of home health episodes of care from the denominator in which the value recorded for the OASIS-C2 item M1860 ("Ambulation/Locomotion") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.

0174 Improvement in bathing

Number of home health episodes from the denominator in which the value recorded for the OASIS-C2 item M1830 ("Bathing") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.

0175 Improvement in bed transferring

Home health episodes of care from the denominator in which the value recorded for the OASIS-C2 item M1850 ("Transferring") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less impairment at discharge compared to start of care.

2287 Functional Change: Change in Motor Score

For Inpatient Rehabilitation Facilities (IRFs) data collection currently occurs as required by the Centers for Medicare and Medicaid Services (CMS) reimbursement using the mandated payment document, the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI). Embedded in the IRF-PAI is the FIM® Instrument. The FIM® Instrument is a criterion referenced tool with 18 items that measures burden of care or level of dependence among individuals for those 18 items. Each item is rated on a scale of 1 (most dependent) to 7 (completely independent). For the purposes of this measure, a subset of 12 FIM® items has been tested and validated. Those items are: Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Rasch analysis was performed on the 12 items and the difference in the rasch derived values (defined in S.2b) from admission to discharge reflect the change at the patient level. The numerator of the measure is the facility's average change.

While the IRF-PAI is specific to inpatient rehabilitation facilities, the measure can be used in all post-acute care venues. The FIM® instrument can be assessed in all venues of care and has been tested and validated in both LTACs and SNFs. In fact, there are a subset of LTACs and SNFs utilizing the FIM® instrument currently (www.udsmr.org), and therefore this measure does not have to be specific to IRFs.

2321 Functional Change: Change in Mobility Score

For Inpatient Rehabilitation Facilities (IRFs) data collection currently occurs as required by the Centers for Medicare and Medicaid Services (CMS) reimbursement using the mandated payment document, the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI). Embedded in the IRF-PAI is the FIM® Instrument. The FIM® Instrument is a criterion referenced tool with 18 items that measures burden of care or level of dependence among individuals for those 18 items. Each item is rated on a scale of 1 (most dependent) to 7 (completely independent). For the purposes of this measure, a subset of 4 FIM® items has been tested and validated. Those items are: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Rasch analysis was performed on the 12 items and the difference in the rasch derived values (defined in S.2b) from admission to discharge reflect the change at the patient level. The numerator of the measure is the facility´s average change.

While the IRF-PAI is specific to inpatient rehabilitation facilities, the measure can be used in all post-acute care venues. The FIM® instrument can be assessed in all venues of care and has been tested and validated in both LTACs and SNFs. In fact, there are a subset of LTACs and SNFs utilizing the FIM® instrument currently (www.udsmr.org), and therefore this measure does not have to be specific to IRFs.

Denominator Statement

0167 Improvement in Ambulation/locomotion

Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.

0174 Improvement in bathing

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in bathing (i.e., were not at the optimal level of health status according to the "Bathing" OASIS-C2 item M1830).

0175 Improvement in bed transferring

The number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.

2287 Functional Change: Change in Motor Score

Facility adjusted adjusted expected change in rasch derived values, adjusted at the Case Mix Group level.

2321 Functional Change: Change in Mobility Score

Facility adjusted adjusted expected change in rasch derived values, adjusted at the Case Mix Group level.

Denominator Details

0167 Improvement in Ambulation/locomotion

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in walking or moving around (i.e. were not at the optimal level of health status according to the OASIS-C2 item M1860 ("Ambulation/Locomotion").

0174 Improvement in bathing

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in bathing (i.e., were not at the optimal level of health status according to the "Bathing" OASIS-C item M1830).

0175 Improvement in bed transferring

All home health episodes of care (except those defined in the denominator exclusion) in which the patient was eligible to improve in bed transferring (i.e., were not at the optimal level of health status according to the "Transferring" OASIS-C item M1850).

2287 Functional Change: Change in Motor Score

To calculate the facility's adjusted expected change in rasch derived values, indirect standarization is used, which weights national CMG-specific values by facility-specific CMG proportions. CMG-adjustment derives the expected value based on the case mix and severity mix of each facility. The case-mix group (CMG) classification system groups similarly impaired patients based on functional status at admission or in essence, patient severity. Patients within the same CMG are expected to have similar resource utilization needs and similar outcomes. There are three steps to classifying a patient into a CMG at admission:

1. Identify the patient's impairment group code (IGC).

2. Calculate the patient's weighted motor index score, calculated from 12 of the 13 motor FIM® items.

3. Calculate the cognitive FIM® rating and the age at admission. (This step is not required for all CMGs.)

See file uploaded in S.15 for calculations.

While CMGs are only present for patients seen in an IRF, the same procedure can be used for LTAC and SNF patients, with groupings specific to those venues of care.

2321 Functional Change: Change in Mobility Score

To calculate the facility´s adjusted expected change in rasch derived values, indirect standarization is used, which weights national CMG-specific values by facility-specific CMG proportions. CMG-adjustment derives the expected value based on the case mix and severity mix of each facility. The case-mix group (CMG) classification system groups similarly impaired patients based on functional status at admission or in essence, patient severity. Patients within the same CMG are expected to have similar resource utilization needs and similar outcomes. There are three steps to classifying a patient into a CMG at admission:

1. Identify the patient's impairment group code (IGC).

2. Calculate the patient's weighted motor index score, calculated from 12 of the 13 motor FIM® items.

3. Calculate the cognitive FIM® rating and the age at admission. (This step is not required for all CMGs.)

See file uploaded in S.2b for calculations.

Exclusions

0167 Improvement in Ambulation/locomotion

All home health episodes where the value recorded for the OASIS-C2 item M1860 ("Ambulation/Locomotion") on the start (or the resumption) of care assessment indicates minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or the episode is covered by the generic exclusions.

0174 Improvement in bathing

All home health episodes where at the start (or resumption) of care assessment the patient had minimal or no impairment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or was covered by the generic exclusions.

0175 Improvement in bed transferring

All home health episodes where at the start (or resumption) of care assessment the patient is able to transfer independently, or the patient is non-responsive. or the episode of care ended in transfer to inpatient facility or death at home, or the episode is covered by the generic exclusions.

2287 Functional Change: Change in Motor Score

National values used in the CMG-adjustment procedure will not include cases who died in the IRF (or other venue) or cases less than 18 years old. Cases who died during rehabilitation are not typical patients and are typically omitted in the literature when looking at rehabilitation outcomes. In addition, the FIM instrument is meant for an adult population (Ottenbacher et al. 1996).

2321 Functional Change: Change in Mobility Score

National values used in the CMG-adjustment procedure will not include cases who died in the IRF (or other venue) or cases less than 18 years old. Cases who died during rehabilitation are not typical patients and are typically omitted in the literature when looking at rehabilitation outcomes. In addition, the FIM instrument is meant for an adult population (Ottenbacher et al. 1996).

Exclusion Details

0167 Improvement in Ambulation/locomotion

Home health episodes of care for which (1) at start/resumption of care, OASIS-C2 item M1860 "Ambulation/ Locomotion" = 0, indicating that the patient was able to ambulate independently; OR (2) at start/resumption of care, OASIS-C2 item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are not collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other patient-level exclusions are applied, or if the agency has been in operation less than six months, then the data is suppressed from public reporting on Home Health Compare.

0174 Improvement in bathing

Home health episodes of care for which [1] at start/resumption of care OASIS item M1830 = 0, indicating the patient was able to bathe self independently; OR (2) at start/resumption of care, OASIS item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are not collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other

patient-level exclusions are applied, or if the agency has been in

operation less than six months, then the data is suppressed from public

reporting on Home Health Compare.

0175 Improvement in bed transferring

Home health episodes of care for which [1] at start/resumption of care OASIS item M1850 = 0, indicating the patient was able to transfer to/from bed independently; OR (2) at start/resumption of care, OASIS-C2 item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR (3) The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR (4) All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are

not collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment

source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other

patient-level exclusions are applied, or if the agency has been in operation

less than six months, then the data is suppressed from public reporting on Home

Health Compare.

2287 Functional Change: Change in Motor Score

Patient's date of birth (DOB) and discharge setting are both variables collected in the IRF-PAI document. Age can be calculated from DOB, and there is a specific discharge setting of died, value '11'. Date of birth and discharge setting are also documented in both LTACs and SNFs.

2321 Functional Change: Change in Mobility Score

Patient´s date of birth (DOB) and discharge setting are both variables collected in the IRF-PAI document. Age can be calculated from DOB, and there is a specific discharge setting of died, value ´11´. Date of birth and discharge setting are also documented in both LTACs and SNFs.

Risk Adjustment

0167 Improvement in Ambulation/locomotion

Statistical risk model

0174 Improvement in bathing

Statistical risk model

0175 Improvement in bed transferring

Statistical risk model

2287 Functional Change: Change in Motor Score

Stratification by risk category/subgroup

2321 Functional Change: Change in Mobility Score

Stratification by risk category/subgroup

Stratification

0167 Improvement in Ambulation/locomotion

Not Applicable

0174 Improvement in bathing

Not applicable

0175 Improvement in bed transferring

Not Applicable

2287 Functional Change: Change in Motor Score

While the measure can be stratified by specific impairment type, the CMG adjustment procedure allows for the measure to be complete, accurate, and valid for all patients within the facility, excluding died cases and ages less than 18.

2321 Functional Change: Change in Mobility Score

While the measure can be stratified by specific impairment type, the CMG adjustment procedure allows for the measure to be complete, accurate, and valid for all patients within the facility, excluding died cases and ages less than 18.

Type Score

0167 Improvement in Ambulation/locomotion

Rate/proportion better quality = higher score

0174 Improvement in bathing

Rate/proportion better quality = higher score

0175 Improvement in bed transferring

Rate/proportion better quality = higher score

2287 Functional Change: Change in Motor Score

Ratio better quality = higher score

2321 Functional Change: Change in Mobility Score

Ratio better quality = higher score

Algorithm

0167 Improvement in Ambulation/locomotion

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

2. Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in ambulation/locomotion at start/resumption of care (M1860_CRNT_AMBLTN[1] = 00).

Cases meeting the target outcome are those where the patient is more independent in ambulation/mobility at discharge than at start/resumption of care:

M1860_CRNT_AMBLTN[2] < M1860_CRNT_AMBLTN[1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

$P(x) = 1/(1+e^{\wedge}(-(a + ?¦?b\_i\ x\_i\ ?))\ )$

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

$X(A\_ra) = X(A\_obs) + X(N\_exp) - X(A\_exp)$

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 135810| 138874| 141015

0174 Improvement in Bathing

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

　　Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

　　Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in bathing at start/resumption of care (M1830_CRNT_BATHG[1] = 00).

Cases meeting the target outcome are those where the patient is more independent in bathing at discharge than at start/resumption of care:

M1830_CRNT_BATHG[2] < M1830_CRNT_BATHG[1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

$P(x) = 1/(1 + e^{\wedge}(-(a + ?¦?b\_i \, x\_i \, ?))))$

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

$X(A\_ra) = X(A\_obs) + X(N\_exp) - X(A\_exp)$

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero.
121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 135810| 138874| 141015

0175 Improvement in bed transferring

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients independent in transferring at start/resumption of care (M1850_CRNT_TRNSFRING[1] = 00).

Cases meeting the target outcome are those where the patient is more independent in transferring at discharge than at start/resumption of care:

M1850_CRNT_TRNSFRING[2] < M1850_CRNT_TRNSFRING[1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

$P(x) = 1/(1+e^{(-(a+?¦?b\_i x\_i ?))})$

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

$X(A\_ra) = X(A\_obs) + X(N\_exp) - X(A\_exp)$

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 136568| 137428| 138696| 134819| 140506| 141130| 141592| 142923| 138874| 141015

2287 Functional Change: Change in Motor Score

1. Target population: Inpatient rehabilitation facility patients, skilled nursing facility short term patients, long term acute care facility patients, and home health patients.

2. Exclusions: Age less than 18 and cases who died during the episode of care.

3. Cases meeting target process: All remaining cases.

4. Outcome: Ratio of facility level average motor change (rasch derived values) to facility CMG adjusted expected motor change.

5. Risk adjustment: CMG adjustment using indirect standardization of the proportion of cases at the facility by CMG, and CMG specific national average of rasch derived value of motor change. 135063

2321 Functional Change: Change in Mobility Score

1. Target population: Inpatient rehabilitation facility patients, skilled nursing facility short term patients, long term acute care facility patients, and home health patients.

2. Exclusions: Age less than 18 and cases who died during the episode of care.

3. Cases meeting target process: All remaining cases.

4. Outcome: Ratio of facility level average motor change (rasch derived values) to facility CMG adjusted expected motor change.

5. Risk adjustment: CMG adjustment using indirect standardization of the proportion of cases at the facility by CMG, and CMG specific national average of rasch derived value of mobility change. 135063| 135810| 117446| 136960| 114481

Submission items

0167 Improvement in Ambulation/locomotion

5.1 Identified measures: 2612 : CARE: Improvement in Mobility

0429 : Change in Basic Mobility as Measured by the AM-PAC:

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: see 5b.1.

5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS for outcome measures reporting rates of improvement in ambulation/locomotion indicated there are no other endorsed measures that report on improvement in ambulation/locomotion in the home health population. There are two related but not competing measures. Change in Basic Mobility as Measured by the AM-PAC (NQF #0429) is a measure of reported changes in patient functioning in transfers, walking, wheelchair skills, stairs, bend/lift/ and carrying tasks as measured by the Activity Measure for Post-Acute Care (AM-PAC). The AM-PAC is a functional status assessment instrument developed specifically for use in facility and community dwelling post-acute care (PAC) patients. However, these measures are focused on overall mobility (not just ambulation/locomotion), and are calculated using data.

CARE: Improvement in Mobility (NQF# 2612) is a measure of mobility based on the subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure specifications and exclusions don't currently apply to home health.

0174 Improvement in bathing

5.1 Identified measures: 0430 : Change in Daily Activity Function as Measured by the AM-PAC:

2613 : CARE: Improvement in Self Care

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: see 5b.1.

5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS indicated there are no other endorsed measures that report on rates of improvement in bathing in the home health population. Change in Daily Activity Function as Measured by the AM-PAC (NQF #0430) is a measure of reported changes in patient functioning in the areas of feeding, meal preparation, hygiene, grooming, and dressing as measured by the Activity Measure for Post-Acute Care (AM-PAC), a functional status assessment instrument developed specifically for use in facility and community dwelling post-acute care (PAC) patients. However, the AM-PAC measure is focused on overall functioning (not just bathing), and is calculated using data that are not currently collected in the home health setting.

CARE: Improvement in Self Care (NQF# 2613) is a measure of self-care based on the subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure specifications and exclusions don't currently apply to home health.

0175 Improvement in bed transferring

5.1 Identified measures: 2612 : CARE: Improvement in Mobility

0429 : Change in Basic Mobility as Measured by the AM-PAC:

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: see 5b.1.

5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS for outcome measures reporting rates of improvement in bed transfer indicated there are no other endorsed measures that report on improvement in bed transfer in the home health population. There are two related but not competing measures. Change in Basic Mobility as Measured by the AM-PAC (NQF #0429) is a measure of reported changes in patient functioning in transfers, walking, wheelchair skills, stairs, bend/lift/ and carrying tasks as measured by the Activity Measure for Post-Acute Care (AM-PAC). The AM-PAC is a functional status assessment instrument developed specifically for use in facility and community dwelling post-acute care (PAC) patients. However, these measures are focused on overall mobility (not just bed transferring), and are calculated using data.

CARE: Improvement in Mobility (NQF# 2612) is a measure of mobility based on the subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure specifications and exclusions don't currently apply to home health.

2287 Functional Change: Change in Motor Score

5.1 Identified measures:

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value:

2321 Functional Change: Change in Mobility Score

5.1 Identified measures:

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value: Measure #2321 is similar to CMS Measure #2634, however Measure #2634 is only intended for Medicare patients whereas Measure #2321 is intended for all patients receiving post acute care.

Comparison of NQF 0167, 0174, and 0175 with other functional status measures (NQF 2287, 2321, 2632, 2634, 2774, 2775, 2776, 2778, 2612, and 2613) — continued

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support
2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients
2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities
2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities
2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Steward

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

Centers for Medicare & Medicaid Services

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Centers for Medicare & Medicaid Services

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Uniform Data System for Medical Rehabilitation, a

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.

Description

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

This measure estimates the risk-adjusted change in mobility score between admission and discharge among LTCH patients requiring ventilator support at admission.

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

This measure estimates the mean risk-adjusted mean change in mobility score between admission and discharge for Inpatient Rehabilitation Facility (IRF) Medicare Part A and Medicare Advantage patients.

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Change in rasch derived values of mobility function from admission to discharge among adult short term rehabilitation skilled nursing facility patients aged 18 years and older who were discharged alive. The time frame for the measure is 12 months. The measure includes the following 4 mobility items:Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Change in rasch derived values of motor function from admission to discharge among adult short term rehabilitation skilled nursing facility patients aged 18 years and older who were discharged alive. The time frame for the measure is 12 months. The measure includes the following 12 items:Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Change in rasch derived values of motor function from admission to discharge among adult long term acute care facility patients aged 18 years and older who were discharged alive. The timeframe for the measure is 12 months. The measure includes the following 12 items:Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.

Type

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

Outcome

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Outcome

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Outcome

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Outcome

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Outcome

Data Source

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

Instrument-Based Data LTCH CARE Data Set

No data collection instrument provided Attachment Change_in_Mobility_NQF_2632_Risk_Adj_Model_01-07-2019-636824735650484277.xlsx

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Instrument-Based Data Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI).

No data collection instrument provided Attachment Change_in_Mobility_NQF_2634_Risk_Adj_Model_01-07-2019.xlsx

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Electronic Health Records, Other, Registry Data Functional Change Form, as seen in the appendix.

Available in attached appendix at A.1 Attachment NQF_Submission_Mobility-635749898391586121.xlsx

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Electronic Health Records, Other, Paper Medical Records Functional Change Form, as seen in the appendix.

Available in attached appendix at A.1 Attachment NQF_Submission-635749892715380581.xlsx

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Electronic Health Records, Other, Paper Medical Records Functional Change Form, as seen in the appendix.

Available in attached appendix at A.1 Attachment NQF_Submission-635749865761904393.xlsx

Level

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

Facility

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Facility

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Facility

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Facility

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Facility

Setting

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

Post-Acute Care

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Post-Acute Care

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Post-Acute Care

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Post-Acute Care

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Post-Acute Care

Numerator Statement

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

The measure does not have a simple form for the numerator and denominator. This measure estimates the risk-adjusted change in mobility score between admission and discharge among LTCH patients requiring ventilator support at admission. The change in mobility score is calculated as the difference between the discharge mobility score and the admission mobility score.

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

The measure does not have a simple form for the numerator and denominator. This measure estimates the risk-adjusted change in mobility score between admission and discharge among Inpatient Rehabilitation Facility (IRF) Medicare Part A and Medicare Advantage patients age 21 and older. The change in mobility score is calculated as the difference between the discharge mobility score and the admission mobility score.

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Average change in rasch derived mobility functional score (Items Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) from admission to discharge at the facility level. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the facility or patients who died within the facility are excluded.

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Average change in rasch derived motor functional score from admission to discharge at the facility level for short term rehabilitation patients. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the SNF or patients who died within the SNF are excluded.

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Average change in rasch derived motor functional score from admission to discharge at the facility level for short term rehabilitation patients. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the LTAC or patients who died within the LTAC are excluded.

Numerator Details

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

Eight mobility activities (listed below) are each scored by a clinician based on a patient´s ability to complete the activity. The scores for the 8 mobility activities are summed to obtain a mobility score at the time of admission and discharge. The change in mobility is the difference between the discharge mobility score and the admission mobility score.

Each patient´s ability to complete each mobility activity (item) is rated by a clinician using the following 6-level rating scale:

level 06 - Independent

level 05 - Setup or clean up assistance

level 04 - Supervision or touching assistance

level 03 - Partial/moderate assistance

level 02 - Substantial/maximal assistance

level 01 - Dependent

The 8 mobility items are:

GG0170A. Roll left and right

GG0170B. Sit to lying

GG0170C. Lying to sitting on side of bed

GG0170D. Sit to stand

GG0170E. Chair/bed-to-chair transfer

GG0170F. Toilet transfer

GG0170J. Walk 50 feet with two turns

GG0170K. Walk 150 feet

If the patient did not attempt the activity, the reason that the activity did not occur is reported as:

07 = Patient refused

09 = Not applicable

10 = Not attempted due to environmental limitations

88 = Not attempted due to medical condition or safety concerns.

The performance period is 24 months for reporting on CMS's LTCH Compare website.

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Seventeen mobility activities are each scored based on a patient´s ability to complete the activity. The scores for the activities are summed to obtain a mobility score at the time of admission and at the time of discharge. The change in mobility is the difference between the discharge mobility score and the admission mobility score.

Each patient´s ability to complete each mobility activity (item) is rated by a clinician using the following 6-level rating scale:

level 06 - Independent

level 05 - Setup or clean up assistance

level 04 - Supervision or touching assistance

level 03 - Partial/moderate assistance

level 02 - Substantial/maximal assistance

level 01 - Dependent

The mobility items are:

GG0170A. Roll left and right

GG0170B. Sit to lying

GG0170C. Lying to sitting on side of bed

GG0170D. Sit to stand

GG0170E. Chair/bed-to-chair transfer

GG0170F. Toilet transfer

GG0170G. Car transfer

GG0170I. Walk 10 feet

GG0170J. Walk 50 feet with two turns

GG0170K. Walk 150 feet

GG0170L. Walking 10 feet on uneven surfaces

GG1070M. 1 step (curb)

GG0170N. 4 steps

GG0170O. 12 steps

GG0170P. Picking up object

GG0170R. Wheel 50 feet with two turns (for patients who do not walk at admission and discharge)

GG0170S. Wheel 150 feet (for patients who do not walk at admission and discharge)

If the patient did not attempt the activity, the reason that activity did not occur is reported as:

07 = Patient refused

09 = Not applicable

10 = Not attempted due to environmental limitations

88 = Not attempted due to medical condition or safety concerns.

The performance period is 12 months for reporting on CMS's IRF Compare website.

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

The target population is all short term rehabilitation patients at the skilled nursing facility, at least 18 years old, who did not die in

the SNF. The numerator is the average change in rasch derived mobility functional score from admission to discharge for each

patient at the facility level, including items: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as: (sum of change at the patient level for all items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) / total number of patients).

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

The target population is all short term rehabilitation patients at the skilled nursing facility, at least 18 years old, who did not die in the SNF. The numerator is the average change in rasch derived motor functional score from admission to discharge for each patient at the facility level, including items: Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel,

Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as: (sum of change at the patient level for all items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) / total number of patients).

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

The target population is all LTAC patients, at least 18 years old, who did not die in the LTAC. The numerator is the average change in rasch derived motor functional score from admission to discharge for each patient at the facility level, including items: Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel,

Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as: (sum of change at the patient level for all items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) / total number of patients).

Denominator Statement

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

The target population (denominator) for this quality measure is the number of LTCH patients requiring ventilator support at the time of admission to the LTCH.

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

The denominator is the number of Inpatient Rehabilitation Facility Medicare Part A and Medicare Advantage patient stays, except those that meet the exclusion criteria.

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Facility adjusted adjusted expected change in rasch derived values, adjusted at the Skilled Nursing Facility Case Mix Group level.

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Facility adjusted expected change in rasch derived values, adjusted for SNF-CMG (Skilled Nursing Facility Case Mix Group), based on impairment type, admission functional status, and age.

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Facility adjusted expected change in rasch derived values, adjusted for CMG (Case Mix Group), based on impairment type, admission functional status, and age.

Denominator Details

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

The denominator includes all LTCH patients requiring ventilator support on admission who are discharged during the performance period, including patients age 21 and older with all payer sources. Patients are selected based on submitted LTCH Care Data Set Admission and Discharge assessment forms.

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

The denominator is the number of Inpatient Rehabilitation Facility Medicare Part A and Medicare Advantage patient stays, except those that meet the exclusion criteria.

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

The target population is all short term rehabilitation patients at the skilled nursing facility, at least 18 years old, who did not die in

the SNF. Impairment type is defined as the primary medical reason for the SNF short term rehabilitation stay (such as stroke, joint

replacement, brain injury, etc.). Admission functional status is the expected value of the average of the sum 4 items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) at the facility level. Age is the age

of the patient at the time of admission to the SNF. The denominator is meant to reflect the expected Mobility functional change score at the facility, if the facility had the same distribution of SNF-CMGs (based on impairment type, functional status at admission,and age at admission). This adjustment procedure is an indirect standarization procedure (observed facility average/expected

facility average).

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

The target population is all short term rehabilitation patients at the skilled nursing facility, at least 18 years old, who did not die in the SNF. Impairment type is defined as the primary medical reason for the SNF short term rehabilitation stay (such as stroke, joint replacement, brain injury, etc.). Admission functional status is the expected value of the average of the sum 12 items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) at the facility level. Age is the age of the patient at the time of admission to the SNF. The denominator is meant to reflect the expected motor functional change score at the facility, if the facility had the same distribution of SNF-CMGs (based on impairment type, functional status at admission, and age at admission). This

adjustment procedure is an indirect standardization procedure (observed facility average/expected facility average).

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

The target population is all LTAC patients, at least 18 years old, who did not die in the LTAC. Impairment type is defined as the primary medical reason for the LTAC stay (such as stroke, joint replacement, brain injury, etc.). Admission functional status is the expected value of the average of the sum 12 items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) at the facility level. Age is the age of the patient at the time of admission to the LTAC. The denominator is meant to reflect the expected motor functional change score at the facility, if the facility had the same distribution of CMGs (based on impairment type, functional status at admission, and age at admission). This adjustment procedure is an indirect standardization procedure (observed facility average/expected facility average).

Exclusions

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

This quality measure has following patient-level exclusion criteria:

1) Patients with incomplete stays:

Rationale: It can be challenging to gather accurate discharge functional assessment data for patients who experience incomplete stays. Patients with incomplete stays include patients who are unexpectedly discharged to an acute-care setting (Inpatient Prospective Payment System or Inpatient Psychiatric Hospital or unit) because of a medical emergency or psychiatric condition; patients transferred to another LTCH; patients who leave the LTCH against medical advice; patients who die; and patients with a length of stay less than 3 days.

2) Patients discharged to hospice:

Rationale: Patients discharged to hospice are excluded because functional improvement may not be a goal for these patients.

3) Patients with progressive neurological conditions, including amyotrophic lateral sclerosis, multiple sclerosis, Parkinson's disease, and Huntington's chorea:

Rationale: These patients are excluded because they may have functional decline or less predictable function trajectories.

4) Patients in coma, persistent vegetative state, complete tetraplegia, and locked-in syndrome:

Rationale: The patients are excluded because they may have limited or less predictable mobility recovery.

5) Patients younger than age 21:

Rationale: There is only limited evidence published about functional outcomes for individuals younger than 21.

6) Patients who are coded as independent on all the mobility items at admission:

Rationale: These patients are excluded because no improvement in mobility skills can be measured with the mobility items used in this quality measure.

Facility-level quality measure exclusion: For LTCHs with fewer than 20 patient stays, data for this quality measure are not publicly reported.

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

This quality measure has six patient-level exclusion criteria:

1) Patients with incomplete stays.

Rationale: It can be challenging to gather accurate discharge functional status data for patients who experience incomplete stays. Patients with incomplete stays include patients who are unexpectedly discharged to an acute care setting (Short-stay Acute Hospital, Critical Access Hospital, Inpatient Psychiatric Facility, or Long-term Care Hospital) because of a medical emergency; patients who die or leave an Inpatient Rehabilitation Facility (IRF) against medical advice; and patients with a length of stay less than 3 days.

2) Patients who are independent with all mobility activities at the time of admission.

Rationale: Patients who are independent with all the mobility items (with the exception of the wheelchair items GG0170R and GG0170S) at the time of admission are assigned the highest score on all the mobility items, and thus, would not be able to show functional improvement on this same set of items at discharge.

3) Patients with the following medical conditions on admission: coma, persistent vegetative state; complete quadriplegia; locked-in syndrome or severe anoxic brain damage, cerebral edema or compression of brain.

Rationale: These patients are excluded because they may have limited or less predictable mobility improvement with the selected mobility items.

4) Patients younger than age 21.

Rationale: There is only limited evidence published about functional outcomes for individuals with Medicare who are younger than 21.

5) Patients discharged to hospice.

Rationale: Patient goals may change during the IRF stay, and functional improvement may no longer be a goal for a patient discharged to hospice.

6) Patients who are not Medicare Part A and Medicare Advantage beneficiaries.

Rationale: IRF-PAI data for patients not covered by the Medicare program are not submitted to the Centers for Medicare and Medicaid Services.

Facility-level quality measure exclusion: For IRFs with fewer than 20 patient stays, data for this quality measure are not publicly reported.

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Excluded in the measure are patients who died in the SNF or patients less than 18 years old.

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Patients age at admission less than 18 years old

Patients who died in the SNF.

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Patients age at admission less than 18 years old

Patients who died in the LTAC.

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

For each of the following exclusion criteria, we provide the data collection items used to identify patient records to be excluded. These items are on the LTCH CARE Data Set Version 4.00.

1) Patients with incomplete stays include patients who are unexpectedly discharged to an acute-care setting (Inpatient Prospective Payment System or Inpatient Psychiatric Hospital or unit) because of a medical emergency or psychiatric condition; patients transferred to another LTCH; patients who leave the LTCH against medical advice; patients who die; and patients with a length of stay less than 3 days.

Items used to identify these patient records:

A2110. Discharge Location

 04 = Hospital emergency department

 05 = Short-stay acute hospital (IPPS)

 06 = Long-term care hospital (LTCH)

 08 = Psychiatric hospital or unit

 12 = Discharged Against Medical Advice

A0250. Reason for Assessment

 11 = Unplanned discharge

 12 = Expired

Patients with a length of stay less than 3 days:

We calculate length of stay using the following items on the LTCH CARE Data Set.

A0220. Admission Date

A0270. Discharge Date

Length of stay is calculated as the Discharge Date minus the Admission Date (Discharge Date - Admission Date). Patient records with a length of stay less than 3 days are excluded.

2) Patients discharged to hospice

Items used to identify these patient records:

A2110. Discharge Location

 10 = Hospice

3) Patients with progressive neurological conditions, including amyotrophic lateral sclerosis, multiple sclerosis, Parkinson's disease, and Huntington's chorea are excluded because these patients may have less predictable mobility recovery or functional decline may be expected.

Items used to identify these patient records:

I5450. Amyotrophic Lateral Sclerosis = 1

I5200. Multiple Sclerosis = 1, or

I5300. Parkinson's Disease = 1, or

I5250. Huntington´s Disease = 1.

4) Patients in coma, persistent vegetative state, severe anoxic brain damage, cerebral edema, or compression of brain, complete tetraplegia, and locked-in syndrome are excluded, because they may have limited or less predictable mobility recovery.

Items used to identify these patient records:

B0100. Comatose = 1, or;

I5101. Complete Tetraplegia = 1, or;

I5460. Locked-In State = 1, or;

I5470. Severe Anoxic Brain Damage, Cerebral Edema, or Compression of Brain.

5) Patients younger than 21 at the time of admission

Items used to identify these patient records:

A0900. Birth Date

A0220. Admission Date

6) Patients who are coded as independent (score = 06) on all the mobility items at admission

Items used to identify these patient records at admission:

GG0170A. Roll left and right = 06, and;

GG0170B. Sit to lying = 06, and;

GG0170C. Lying to sitting on side of bed = 06, and;

GG0170D. Sit to stand, = 06 and,

GG0170E. Chair/bed-to-chair transfer, = 06, and;

GG0170F. Toilet transfer, = 06, and;

GG0170J. Walk 50 feet with two turns = 06, and;

GG0170K. Walk 150 feet = 06.

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

The following items are used to identify which patients are excluded from the quality measure calculations.

These data elements are included on the current version of the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI), which is available at: http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/IRFPAI.html

It can be challenging to gather accurate discharge functional status data for patients who experience incomplete stays. Patients with incomplete stays include patients who are unexpectedly discharged to an acute care setting (Short-stay Acute Hospital, Critical Access Hospital, Inpatient Psychiatric Facility, or Long-term Care Hospital), because of a medical emergency; patients discharged to a hospice; patients who die or leave an Inpatient Rehabilitation Facility (IRF) against medical advice; and patients with a length of stay less than 3 days.

Items used to identify these patient records:

1) Patients with incomplete stays.

Patients with a length of stay less than 3 days: We calculate length of stay using the following items on the IRF-PAI.

Length of stay is calculated as the Discharge Date minus the Admission Date (Discharge Date - Admission Date). Patient records with a length of stay of less than 3 days are excluded.

Item 12. Admission Date.

Item 40. Discharge Date.

Item 41. Patient discharged against medical advice. This item is used to identify patients discharged against medical advice.

Patient records with a response of "Yes = 1" are excluded.

Item 44C. Was the patient discharged alive? This item is used to identify patients who died during the IRF stay.

Patient records with a response of "No = 0" are excluded.

44D. Patient's discharge destination/living setting.

This item is used to identify an incomplete stay. Specifically, the following responses will be used to identity patients with incomplete stays:

Short-term General Hospital = 02

Long-Term Care Hospital = 63

Inpatient Psychiatric Facility = 65

Critical Access Hospital = 66.

2) Patients who are independent with all mobility activities at the time of admission.

Patients who are independent with all the mobility items at the time of admission are assigned the highest score on all the mobility items, thus, would not be able to show functional improvement (i.e., a higher score)on this same set of items at discharge. The following items and scores are used to identify and exclude patient records:

Mobility items

GG0170A. Roll left and right = 06, and

GG0170B. Sit to lying = 06, and

GG0170C. Lying to sitting on side of bed = 06, and

GG0170D. Sit to stand = 06, and

GG0170E. Chair/bed-to-chair transfer = 06, and

GG0170F. Toilet transfer = 06, and

GG0170G. Car transfer = 06, and

GG0170I. Walk 10 feet = 06, and

GG0170J. Walk 50 feet with two turns = 06, and

GG0170K. Walk 150 feet = 06, and

GG0170L. Walking 10 feet on uneven surfaces = 06, and

GG0170M. 1 step (curb) = 06, and

GG0170N. 4 steps = 06, and

GG0170O. 12 steps = 06, and

GG0170P. Picking up object = 06.

3) Patients with the following medical conditions on admission: coma; persistent vegetative state; complete quadriplegia; locked-in syndrome; and severe anoxic brain damage, cerebral edema or compression of the brain.

The following items will be used to identify patients with these conditions:

21A. Impairment Group.

0004.1221 - Spinal Cord Dysfunction, Non-Traumatic: Quadriplegia Complete, C1-C4

0004.1222 - Spinal Cord Dysfunction, Non-Traumatic: Quadriplegia Complete, C5-C8

0004.2221 - Spinal Cord Dysfunction, Traumatic: Quadriplegia Complete, C1-C4

0004.2222 - Spinal Cord Dysfunction, Traumatic: Quadriplegia Complete, C5-C8

22. Etiologic Diagnosis.

This item is used to determine a patient´s etiologic problem that led to the condition for which the patient is receiving rehabilitation. The following Hierarchical Condition Categories (HCCs) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes will be used to identify and exclude records of patients with these conditions:

HCC 80. Coma, Brain Compression/Anoxic Damage

ICD-10-CM. G82.51 Quadriplegia, C1-C4 complete

ICD-10-CM. G82.53 Quadriplegia, C5-C7 complete

ICD-10-CM. S14.11xx Quadriplegia, Complete lesion at Cx(1-8) level of cervical spinal cord, initial encounter or subsequent encounter, or sequela

ICD-10-CM. G83.5. Locked-in state

24. Comorbid Conditions.

This item is used to exclude selected comorbidities. The following Hierarchical Condition Categories (HCCs) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes will be used to exclude records of patients with these conditions:

HCC 80. Coma, Brain Compression/Anoxic Damage

ICD-10-CM. G82.51 Quadriplegia, C1-C4 complete

ICD-10-CM. G82.53 Quadriplegia, C5-C7 complete

ICD-10-CM. S14.11xx Quadriplegia, Complete lesion at Cx(1-8) level of cervical spinal cord, initial encounter or subsequent encounter, or sequela

ICD-10-CM. G83.5. Locked-in state

4) Patients younger than age 21. These items are used to calculate age, and patients who are younger than 21 years of age at the time of admission are excluded.

6. Birth Date

12. Admission Date

Age is calculated as the Admission Date minus the Birth Date (Admission Date - Birth Date). Patients younger than 21 are excluded.

5) Patients discharged to hospice.

44D. Patient's discharge destination/living setting.

This item is used to identify patients discharged to hospice. The following responses are used:

Hospice (home) = 50

Hospice (institutional facility) = 51

6) Patients who are not Medicare Part A and Medicare Advantage beneficiaries

20A. Primary Source = 99 - Not Listed AND

20B. Secondary Source = 99 - Not Listed

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Living at discharge and age at admission are collected through the MDS.

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Living at discharge and age at admission are collected through the MDS.

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Living at discharge and age at admission are collected through OASIS.

Risk Adjustment

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

Statistical risk model

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Statistical risk model

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Stratification by risk category/subgroup

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Stratification by risk category/subgroup

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Stratification by risk category/subgroup

Stratification

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

This measure does not use stratification.

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Not applicable

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

See definition of the SNF-CMGs in the excel file provided.

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

See definition of the SNF-CMGs in the excel file provided.

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

See definition of the CMGs in the excel file provided.

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

Continuous variable, e.g. average better quality = higher score

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

Continuous variable, e.g. average better quality = higher score

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

Ratio better quality = higher score

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

Ratio better quality = higher score

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

Ratio better quality = higher score

Algorithm

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

We provide the detailed calculation algorithm in an attachment entitled "LTCH Detailed Function QM Specifications 2632 01-07-2019" included in the Appendix.

The detailed calculation algorithm is provided to the public in the document entitled IRF Measure Calculations and Reporting User's Manual. The current version of this document is available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/IRF-Quality-Reporting-Program-Measures-Information-.html

The following are the key steps used to calculate the measure:

1) Sum the scores of the admission mobility items to create an admission mobility score for each patient. Mobility items that contained 'activity not attempted' codes (07. Patient refused, 09. Not applicable, 10. Not attempted due to environmental limitations, and 88. Not attempted due to medical condition or safety concerns) or were skipped, dashed, or missing are recoded to 01. Dependent (range: 8 to 48).

2) Sum the scores of the discharge mobility items to create a discharge mobility score for each patient. Mobility items that contained 'activity not attempted' values (07. Patient refused, 09. Not applicable, 10. Not attempted due to environmental limitations, and 88. Not attempted due to medical condition or safety concerns) or were skipped, dashed, or missing are recoded to 01. Dependent (range: 8 to 48).

3) Identify the records of patients who meet the exclusion criteria and exclude these patient records from analyses.

4) Calculate the difference between the admission mobility score (from step 1) and the discharge mobility score (from step 2) for each patient to create a change in mobility score for each patient.

5) Calculate an expected change in mobility score for each patient using regression coefficients from national data and each patient's admission characteristics (risk adjustors).

6) Calculate an average observed change in mobility score for each LTCH (using the patient data calculated in step 4). This is the facility-level observed change in mobility score.

7) Calculate an average expected change in mobility score for each LTCH (using the patient data calculated in step 5). This is the facility-level expected change in mobility score.

8) Subtract the facility-level expected change score from the facility-level observed change score to determine the difference in scores (difference value). A difference value that is 0 indicates the observed and expected scores are equal. An observed minus expected difference value that is higher than 0 (positive) indicates that the observed change score is greater (better) than the expected change score. An observed minus expected difference value that is less than 0 (negative) indicates that the observed change score is lower (worse) than the expected change score.

9) Add the national average change in mobility score to each IRF's difference value (from step 8). This is the risk-adjusted mean change in mobility score.

Each patient´s ability to complete each mobility activity (item) is rated by a clinician using the following 6-level rating scale:

level 06 - Independent

level 05 - Setup or clean up assistance

level 04 - Supervision or touching assistance

level 03 - Partial/moderate assistance

level 02 - Substantial/maximal assistance

level 01 - Dependent

The 8 mobility items are:

GG0170A. Roll left and right

GG0170B. Sit to lying

GG0170C. Lying to sitting on side of bed

GG0170D. Sit to stand

GG0170E. Chair/bed-to-chair transfer

GG0170F. Toilet transfer

GG0170J. Walk 50 feet with two turns

GG0170K. Walk 150 feet 138203| 141592

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

We provide the detailed calculation algorithm in an attachment entitled "IRF Detailed Function QM Specifications 2634 01-07-2019" included in the Appendix.

The detailed calculation algorithm is provided to the public in the document entitled IRF Measure Calculations and Reporting User's Manual. The current version of this document is available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/IRF-Quality-Reporting-Program-Measures-Information-.html

The following are key steps used to calculate the measure:

1) Sum the scores of the admission mobility items to create an admission mobility score for each patient, after 'activity not attempted' codes (07. Patient refused, 09. Not applicable, 10. Not attempted due to environmental limitations, and 88. Not attempted due to medical condition or safety concerns), skip codes ('^') and missing data ('-') are recoded, and for patients who do not walk on admission and discharge, walking items have been recoded to use wheelchair mobility item codes. (range: 15 to 90).

2) Sum the scores of the discharge mobility items to create a discharge mobility score for each patient, after 'activity not attempted' values (07. Patient refused, 09. Not applicable, 10. Not attempted due to environmental limitations, and 88. Not attempted due to medical condition or safety concerns), skip codes ('^') and missing data ('-') are recoded. As described in step 1, for patients who do not walk on admission and discharge, use wheelchair mobility item codes instead of walking codes. (range: 15 to 90).

3) Identify the records of patients who meet the exclusion criteria and exclude them from analyses.

4) Calculate the difference between the admission mobility score (from step 1) and the discharge mobility score (from step 2) for each patient to create a change in mobility score for each patient.

5) Calculate an expected change in mobility score for each patient using regression coefficients from national data and each patient's admission characteristics (risk adjustors).

6) Calculate an average observed change in mobility score for each IRF (using the patient data calculated in step 4). This is the facility-level observed change in mobility score.

7) Calculate an average expected change in mobility score for each IRF (using the patient data from step 5). This is the facility-level expected change in mobility score.

8) Subtract the facility-level expected change score from the facility-level observed change score to determine the difference in scores (difference value). A difference value that is 0 indicates the observed and expected scores are equal. An observed minus expected difference value that is higher than 0 (positive) indicates that the observed change score is greater (better) than the expected change score. An observed minus expected difference value that is less than 0 (negative) indicates that the observed change score is lower (worse) than the expected change score.

9) Add the national average change in mobility score to each IRF's difference value (from step 8). This is the risk-adjusted mean change in mobility score.

Each patient´s ability to complete each mobility activity (item) is rated by a clinician using the following 6-level rating scale:

level 06 - Independent

level 05 - Setup or clean up assistance

level 04 - Supervision or touching assistance

level 03 - Partial/moderate assistance

level 02 - Substantial/maximal assistance

level 01 - Dependent

The mobility items are:

GG0170A. Roll left and right

GG0170B. Sit to lying

GG0170C. Lying to sitting on side of bed

GG0170D. Sit to stand

GG0170E. Chair/bed-to-chair transfer

GG0170F. Toilet transfer

GG0170G. Car transfer

GG0170I. Walk 10 feet

GG0170J. Walk 50 feet with two turns

GG0170K. Walk 150 feet

GG0170L. Walking 10 feet on uneven surfaces

GG1070M. 1 step (curb)

GG0170N. 4 steps

GG0170O. 12 steps

GG0170P. Picking up object

GG0170R. Wheel 50 feet with two turns (for patients who do not walk at admission and discharge)

GG0170S. Wheel 150 feet (for patients who do not walk at admission and discharge) 138203| 135810| 141592

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

1. Identify all short term rehabilitation patients during the assessment time frame (12 months).

2. Exclude any patients who died in the SNF.

3. Exclude any patients who are less than 18 at the time of admission to the SNF.

3. Calculate the total mobility change score for each of the remaining patients (sum of change at the patient level for all items

(Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.)

4. Transform the patient level functional change scores to the rasch derived value (as stated in the excel file).

5. Calculate the average rasch derived mobility change score at the facility level.

6. Using national data and previously described adjustment procedure, calculate the facility´s expected rasch derived average mobility

change score for the time frame (12 months).

7. Calculate the ratio outcome by taking the observed facility average mobility change score/facility´s national expected mobility

change score. 135063

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

1. Identify all short term rehabilitation patients during the assessment time frame (12 months).

2. Exclude any patients who died in the SNF.

3. Exclude any patients who are less than 18 at the time of admission to the SNF.

3. Calculate the total motor change score for each of the remaining patients (sum of change at the patient level for all items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, Memory, Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.)

4. Transform the patient level functional change scores to the rasch derived value (as stated in the attached excel file).

5. Calculate the average rasch derived motor change score at the facility level.

6. Using national data and previously described adjustment procedure, calculate the facility's expected rasch derived average motor change score for the time frame (12 months).

7. Calculate the ratio outcome by taking the observed facility average motor change score/facility's national expected motor change score. 135063

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

1. Identify all patients during the assessment time frame (12 months).

2. Exclude any patients who died in the LTAC.

3. Exclude any patients who are less than 18 at the time of admission to the LTAC.

3. Calculate the total motor change score for each of the remaining patients (sum of change at the patient level for all items (Eating, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, and Memory.)

4. Transform the patient level functional change scores to the rasch derived value (as stated in excel file).

5. Calculate the average rasch derived motor change score at the facility level.

6. Using national data and previously described adjustment procedure, calculate the facility's expected rasch derived average motor change score for the time frame (12 months).

7. Calculate the ratio outcome by taking the observed facility average motor change score/facility's national expected motor change score. 135063

Submission items

2632 Long-Term Care Hospital (LTCH) Functional Outcome Measure: Change in Mobility Among Patients Requiring Ventilator Support

5.1 Identified measures: 0423 : Functional status change for patients with Hip impairments

0425 : Functional status change for patients with lumbar impairments

0429 : Change in Basic Mobility as Measured by the AM-PAC:

0422 : Functional status change for patients with Knee impairments

0424 : Functional status change for patients with Foot and Ankle impairments

0428 : Functional status change for patients with General orthopaedic impairments

0167 : Improvement in Ambulation/locomotion

0175 : Improvement in bed transferring

5a.1 Are specs completely harmonized? Yes

5a.2 If not completely harmonized, identify difference, rationale, impact: Quality measures NQF # 0167, NQF # 0175, and NQF # 0174 use a single function activity to indicate whether

patients have made functional improvement. These measures apply to home health patients, which is a different target population than LTCH patients. The quality measure NQF #0429 Change in basic mobility uses several function activities to define mobility; the measure does not list LTCH patients as a target population. NQF measures # 0422, #0423, #0424, #0425, #0426, #0427, and #0428 apply to outpatients, which is a different population than LTCH patients.

5b.1 If competing, why superior or rationale for additive value: Not applicable

2634 Inpatient Rehabilitation Facility (IRF) Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

5.1 Identified measures: 0423 : Functional status change for patients with Hip impairments

0425 : Functional status change for patients with lumbar impairments

0426 : Functional status change for patients with Shoulder impairments

0427 : Functional status change for patients with elbow, wrist and hand impairments

0429 : Change in Basic Mobility as Measured by the AM-PAC:

0422 : Functional status change for patients with Knee impairments

0424 : Functional status change for patients with Foot and Ankle impairments

0428 : Functional status change for patients with General orthopaedic impairments

0167 : Improvement in Ambulation/locomotion

0175 : Improvement in bed transferring

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: The listed measures conceptually address the same topic, function, but the target populations for these measures are different. Several measures are used in outpatients and home health care settings.

5b.1 If competing, why superior or rationale for additive value: Not applicable

2774 Functional Change: Change in Mobility Score for Skilled Nursing Facilities

5.1 Identified measures: 2612 : CARE: Improvement in Mobility

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: While the CARE items and the change in mobility items measure the same construct of functional (in)dependence, there are some key differences included in the measures, and in the measurement of the items. The mobility measure, submitted by UDS includes the following items: Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. The CARE items included in the measure submitted by AHCA include: : Roll left and right, Sit to lying, Lying to sitting on side of bed, Sit to stand, Chair/bed-to-chair transfer, Toilet transfer, Car transfer, Walk 10 feet, Walk 50 feet with 2 turns, Walk 150 feet, Walking 10 feet on uneven surfaces, 1 step, 4 steps, 12 steps, Pick up object. Once again there is great overlap in the items, There is great overlap between the items in the two measures, particularly in the transfer items, locomotion, and stairs. However while our measure contains only four items, the CMS measure contains 14 items. While our measure has the one locomotion item, for instance, the ACHA measure has four. Similarly, our measure contains one item for stairs, while the CMS measure contains three. This becomes burdensome on the provider to have to collect an additional 10 items and it hasn't been proven that there is

additional value or specificity in the measure. Rasch analysis shows us that more items do not always mean better measurement. Finally, the UDSMS change in mobility measure is the exact same measure (same items, same rating scale, same adjustment) used in SNF, IRF and LTAC, offering consistency in measuring patient function across PAC venues, which has been an interest for PAC and is a current objective of the IMPACT ACT.

5b.1 If competing, why superior or rationale for additive value: The functional items have been collected in SNFs for over 20 years. This allows for a historical perspective of function in the SNFs that the CARE items do not allow. In addition, the these items have been used in inpatient rehabilitation

facilities for over 30 years, and therefore, a comparison in functional gains between IRFs and SNFs can be easily made should this

measure be utilized in both venues of care.

2775 Functional Change: Change in Motor Score for Skilled Nursing Facilities

5.1 Identified measures:

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value:

2776 Functional Change: Change in Motor Score in Long Term Acute Care Facilities

5.1 Identified measures:

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value:

Comparison of NQF 0167, 0174, and 0175 with other functional status measures (NQF 2287, 2321, 2632, 2634, 2774, 2775, 2776, 2778, 2612, and 2613) — continued

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
2612 CARE: Improvement in Mobility
2613 CARE: Improvement in Self Care

Steward

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Uniform Data System for Medical Rehabilitation, a

2612 CARE: Improvement in Mobility

American Health Care Association

2613 CARE: Improvement in Self Care

American Health Care Association

Description

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Change in rasch derived values of mobility function from admission to discharge among adult LTAC patients aged 18 years and older who were discharged alive. The time frame for

the measure is 12 months. The measure includes the following 4 mobility items:Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.

2612 CARE: Improvement in Mobility

The measure calculates a skilled nursing facility's (SNFs) average change in mobility for patients admitted from a hospital who are receiving therapy. The measure calculates the average change in mobility score between admission and discharge for all residents admitted to a SNF from a hospital or another post-acute care setting for therapy (i.e., PT or OT) regardless of payor status. This is a risk adjusted outcome measure, based on the mobility subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure is calculated on a rolling 12 month, average updated quarterly.

2613 CARE: Improvement in Self Care

The measure calculates a skilled nursing facility's (SNFs) average change in self care for patients admitted from a hospital who are receiving therapy. The measure calculates the average change in self care score between admission and discharge for all residents admitted to a SNF from a hospital or another post-acute care setting for therapy (i.e., PT or OT) regardless of payor status. This is a risk adjusted outcome measure, based on the self care subscale of the Continuity Assessment and Record Evaluation (CARE) Tool and information from the admission MDS 3.0 assessment. The measure is calculated on a rolling 12 month, average updated quarterly.

Type

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
Outcome

2612 CARE: Improvement in Mobility
Outcome

2613 CARE: Improvement in Self Care
Outcome

Data Source

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Electronic Health Records, Other, Paper Medical Records Functional Change Form, as seen in the appendix.

Available in attached appendix at A.1 Attachment NQF_Submission_Mobility-635749871757956568.xlsx

2612 CARE: Improvement in Mobility

Electronic Health Records, Other Resident Assessment Instrument Minimum Data Set (MDS) version 3.0

Continuity Assessment and Record Evaluation (CARE) Tool; Mobility subscale

Available in attached appendix at A.1 No data dictionary

2613 CARE: Improvement in Self Care

Electronic Health Records, Other Resident Assessment Instrument Minimum Data Set (MDS) version 3.0

Continuity Assessment and Record Evaluation (CARE) tool; Self Care subscale

Available in attached appendix at A.1

Level

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Facility

2612 CARE: Improvement in Mobility

Facility

2613 CARE: Improvement in Self Care

Facility

Setting

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Post-Acute Care

2612 CARE: Improvement in Mobility

Nursing Home / SNF

2613 CARE: Improvement in Self Care

Nursing Home / SNF

Numerator Statement

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Average change in rasch derived mobility functional score (Items Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) from admission to discharge at the facility level. Average is calculated as (sum of change at the patient level/total number of patients). Cases aged less than 18 years at admission to the facility or patients who died within the facility are excluded.

2612 CARE: Improvement in Mobility

The measure assesses the change in mobility. The numerator is the risk adjusted sum of the change in the CARE Tool mobility subscale items between admission and discharge for each individual admitted from a hospital or another post acute care setting regardless of payor status and are receiving therapy (PT or OT) for any reason in a skilled nursing center.

2613 CARE: Improvement in Self Care

This outcome measure assesses the change in self-care. The numerator is the risk adjusted sum of the change in the CARE Tool self care subscale items between admission and discharge for each individual admitted from a hospital or another post-acute care setting regardless of payor status and are receiving therapy (PT or OT) for any reason in a skilled nursing center.

Numerator Details

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

The target population is all LTAC patients, at least 18 years old, who did not die in the LTAC. The numerator is the average change in rasch derived mobility functional score from admission to discharge for each patient at the facility level, including items: Transfer

Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs. Average is calculated as: (sum of change at the patient level for all items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) / total number of patients).

2612 CARE: Improvement in Mobility

The numerator includes all residents admitted from a hospital or another post acute care setting that receive any PT or OT therapy for any reason in a SNF that have a completed mobility CARE tool assessment at admission and discharge (see denominator definition below). The mobility items used from the CARE tool are listed below and rated on a 1-6 scale (see Appendix for copy of the CARE Tool assessment).

The items included in the CARE Tool Mobility subscale include:

- B1. Lying to Sitting on Side of Bed
- B2. Sit to Stand
- B3. Chair/Bed to Chair Transfer
- B4. Toilet Transfer
- B5a & B5b. Walking or Wheelchair Mobility
- C3. Roll left / right
- C4. Sit to Lying
- C5. Picking up object
- C7a. One Step Curb
- C7b. Walk 50 ft. with Two Turns
- C7c. Walk 12 Steps.
- C7d. Walk Four Steps
- C7e. Walking 10 ft. on Uneven Surface
- C7f. Car Transfer

The numerator is a facility's average risk adjusted change score on the mobility component of the CARE tool. The risk adjusted average change score is calculated in several steps:

Step 1: Each individual's admission and discharge mobility scale score is calculated. Items rated as S. Not attempted due to safety concerns, A. Task attempted but not completed, N. Not applicable and P. Patient Refused were recoded to one. For each individual, the ratings for all the mobility items on the CARE tool at admission are summed and transformed to a 0-100 scale. The same is done for the discharge assessment.

Step 2: Each individual's unadjusted change score is calculated by taking the admission score minus the discharge score.

Step 3: The individual's unadjusted change score is risk adjusted (see risk adjustment section)

Step 4: The facilities risk adjusted change score is the sum of all the individual's risk adjusted change scores divided by the denominator.

2613 CARE: Improvement in Self Care

The numerator includes all residents admitted from a hospital or another post-acute care setting that receive any PT or OT therapy for any reason in a SNF that have a completed CARE Tool self care subscale assessment at admission and discharge (see denominator

definition below). The self care items used from the CARE tool are listed below and rated on a 1-6 scale (see Appendix for CARE Tool).

The items included in the CARE Tool self care subscale include:

- A1. Eating
- A3. Oral Hygiene
- A4. Toilet Hygiene
- A5. Upper Body Dressing
- A6. Lower Body Dressing
- C1. Wash Upper Body
- C2. Shower / Bathe
- C6. Putting on / taking off footwear

The numerator is facility's average risk adjusted change score on the self care subscale of the CARE tool. The risk adjusted average change score is calculated in several steps:

Step 1: Each individual's admission and discharge self care subscale score is calculated. Items rated as S. Not attempted due to safety concerns, A. Task attempted but not completed, N. Not applicable and P. Patient Refused were recoded to one on a six point rating scale (e.g. dependent). For each individual, the ratings for all the self care items on the CARE tool at admission are summed and transformed to a 0-100 scale. The same is done for the discharge assessment.

Step 2: Each individual's unadjusted change score is calculated by taking the admission score minus the discharge score.

Step 3: The individual's unadjusted change score is risk adjusted (see S.14)

Step 4: The facility's risk adjusted change score is the sum of all the individual's risk adjusted change scores divided by the denominator.

Denominator Statement

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Facility adjusted adjusted expected change in rasch derived values, adjusted at the Case Mix Group level.

2612 CARE: Improvement in Mobility

The denominator includes all residents admitted to a SNF from a hospital or another post-acute care setting who receive either PT or OT therapy for any reason during their stay regardless of payor status, have a completed mobility CARE tool assessment at admission and discharge and do not meet any of the exclusion criteria. The mobility items used from the CARE tool are listed below and rated on a 1-6 scale (see Appendix for copy of the mobility CARE tool assessment).

The items included in the CARE Tool Mobility subscale include:

- B1. Lying to Sitting on Side of Bed
- B2. Sit to Stand
- B3. Chair/Bed to Chair Transfer
- B4. Toilet Transfer
- B5a & B5b. Walking or Wheelchair Mobility

- C3. Roll left / right
- C4. Sit to Lying
- C5. Picking up object
- C7a. One Step Curb
- C7b. Walk 50 ft. with Two Turns
- C7c. Walk 12 Steps.
- C7d. Walk Four Steps
- C7e. Walking 10 ft. on Uneven Surface
- C7f. Car Transfer

2613 CARE: Improvement in Self Care

The denominator includes all residents admitted to a SNF from a hospital or another post-acute care setting who receive either PT or OT therapy for any reason during their stay regardless of payor status, have a completed self care subscale of the CARE Tool at admission and discharge and do not meet any of the exclusion criteria and do not have missing data. The self care items used from the CARE tool are listed below and rated on a 1-6 scale (see Appendix for CARE Tool).

The items included in the CARE Tool self care subscale include:

- A1. Eating
- A3. Oral Hygiene
- A4. Toilet Hygiene
- A5. Upper Body Dressing
- A6. Lower Body Dressing
- C1. Wash Upper Body
- C2. Shower / Bathe
- C6. Putting on / taking off footwear

Denominator Details

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

The target population is all LTAC patients, at least 18 years old, who did not die in the LTAC. Impairment type is defined as the primary medical reason for the LTAC stay (such as stroke, joint replacement, brain injury, etc.). Admission functional status is the expected value of the average of the sum 4 items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs) at the facility level. Age is the age of the patient at the time of admission to the LTAC. The denominator is meant to reflect the expected Mobility functional change score at the facility, if the facility had the same distribution of CMGs (based on impairment type, functional status at admission,and age at admission). This adjustment procedure is an indirect standardization procedure (observed facility average/expected

facility average).

2612 CARE: Improvement in Mobility

The denominator includes all residents admitted to a SNF who are receiving any PT or OT therapy for any reason.

The denominator is based on admission from any hospital or post-acute care setting and is determined using information from MDS item "A1800 Entered From" coded as "03 Acute Care Hospital" or "02 Another nursing home or swing bed" or "05 inpatient rehabilitation facility" or "09 Long Term Care Hospital" regardless of payor status. They must receive either PT or OT therapy during their stay. A resident's stay is defined as an episode of care from admissions to discharge from the facility or discharge from therapy services (defined as completing a discharge CARE tool assessment). Overall, approximately 85% of all admissions from a hospital receive either PT or OT therapy based on SNF Part A claims (or MDS 3.0 data).

2613 CARE: Improvement in Self Care

The denominator includes all residents admitted to a SNF who are receiving any PT or OT therapy for any reason. The denominator is based on admission from any hospital or post-acute care setting and is determined using information from MDS item "A1800 Entered From" coded as "03 Acute Care Hospital" or "02 Another nursing home or swing bed" or "05 inpatient rehabilitation facility" or "09 Long Term Care Hospital (LTCH)", regardless of payor status. They must receive either PT or OT therapy during their stay. A resident's stay is defined as an episode of care from admissions to discharge from the facility or discharge from therapy services (defined as completing a discharge CARE Tool assessment).

Exclusions

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Excluded in the measure are patients who died in the LTAC or patients less than 18 years old.

2612 CARE: Improvement in Mobility

Patients are excluded for two broad reasons:

1. if they have conditions where improvement in mobility is very unlikely,

OR

2. have missing data necessary to calculate the measure

Additionally, facilities with denominator size of fewer than 30 patients during a 12 month period are excluded from reporting their data.

2613 CARE: Improvement in Self Care

Individual patients are excluded for two broad reasons:

1. if they have conditions where improvement in self-care is very unlikely,

OR

2. have missing data necessary to calculate the measure

Additionally, facilities with denominator size of fewer than 30 patients during a 12 month period are excluded from reporting of their data.

Exclusion Details

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

Living at discharge and age at admission are collected through OASIS

2612 CARE: Improvement in Mobility

Individuals with conditions where improvement in mobility (as determined by a panel of expert therapists) is very unlikely were excluded based on information from the admission MDS 3.0 assessment. Individuals with one of the following MDS 3.0 items marked as yes were excluded:

- Ventilator (O0100F1 =1 or O0100F2 =1)
- Coma (B0100 =1)
- Quadriplegic (I5100=1)
- Hospice (O0100K1 = 1)

In addition, we also excluded individuals whose age is less than 18 years.

Overall, these exclusions resulted in 1.1% of all admissions being excluded.

Missing data also resulted in individuals being excluded

- Missing a discharge CARE Tool assessment (this resulted when individuals died or were hospitalized during their SNF stay) resulted in patients being excluded since one could not calculate a change from admission. Nationally approximately 21.6% of admissions to a SNF will be hospitalized during their therapy stay and 4.5% will die (based on analysis of SNF part A claims from 2009-2011).
- Missing data on individual CARE Tool mobility assessment items on at least one item occurred 27.2% of the time. Approximately a third of all missing data related to just three items C7c walking 12 steps; C7d walking 4 steps and C7f car transfer but did not differ significantly between admission and discharge assessments. We did not impute any missing data for mobility items.

2613 CARE: Improvement in Self Care

Individuals with conditions where improvement in self care (as determined by a panel of expert therapists) is very unlikely were excluded based on information from the admission MDS 3.0 assessment. Individuals with one of the following MDS 3.0 items marked as yes were excluded:

- Ventilator (O0100F1 =1 or O0100F2 =1)
- Coma (B0100 =1)
- Quadriplegic (I5100=1)
- Hospice (O0100K1 = 1)

In addition, we also excluded individuals whose age is less than 18 years.

Overall, these exclusions resulted in 1.1% of all admissions being excluded.

Missing data also resulted in individuals being excluded, details are as follows:

- Missing a discharge CARE Tool assessment (this resulted when individuals died or were hospitalized during their SNF stay) resulted in patients being excluded since one could not calculate a change from admission. Nationally approximately 21.6% of admissions to a SNF will be hospitalized during their therapy stay and 4.5% will die (based on analysis of SNF part A claims from 2009-2011).
- Missing data on individual items on either the admission or discharge CARE Tool assessment resulted in the individual being excluded from calculation. For self care items, this occurred 4.4% of the time. We did not impute any missing data for self care items.

Risk Adjustment

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
Stratification by risk category/subgroup

2612 CARE: Improvement in Mobility
Statistical risk model

2613 CARE: Improvement in Self Care
Statistical risk model

Stratification

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
See definition of the CMGs in the excel file provided.

2612 CARE: Improvement in Mobility
Not Applicable

2613 CARE: Improvement in Self Care
Not Applicable

Type Score

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
Ratio better quality = higher score

2612 CARE: Improvement in Mobility
Continuous variable, e.g. average better quality = higher score

2613 CARE: Improvement in Self Care
Continuous variable, e.g. average better quality = higher score

Algorithm

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities
1. Identify all patients during the assessment time frame (12 months).

2. Exclude any patients who died in the LTAC.

3. Exclude any patients who are less than 18 at the time of admission to the LTAC.

3. Calculate the total mobility change score for each of the remaining patients (sum of change at the patient level for all items (Transfer Bed/Chair/Wheelchair, Transfer Toilet, Locomotion and Stairs.)

4. Transform the patient level functional change scores to the rasch derived value (as stated in excel file).

5. Calculate the average rasch derived mobility change score at the facility level.

6. Using national data and previously described adjustment procedure, calculate the facility's expected rasch derived average mobility change score for the time frame (12 months).

7. Calculate the ratio outcome by taking the observed facility average mobility change score/facility's national expected mobility change score. 135063

2612 CARE: Improvement in Mobility

The facility-level mobility improvement scores are calculated using the following 15 steps.

Step 1. Choose the 12 month window for which we will select episodes. This is the four consecutive calendar quarters ending with the most recent calendar quarter for which both MDS data and CARE Tool data are available for use in the measure.

Step 2. Identify all MDS discharge assessments (in which we understand the CARE Tool items will be embedded) with a discharge date that fell within the 12 month window identified in Step 1.

Step 3. For each MDS tool discharge assessment identified in Step 2, identify the corresponding MDS admission assessment (in which we understand the CARE Tool items will be embedded). An MDS assessment is identified as an admission assessment if A0310F == "01" (entry record). Note that the admission date may lie before the 12 month window defined in Step 1. The period of time from the admission date (corresponding with the MDS admission assessment) through to the discharge date (corresponding with the MDS discharge assessment) is called an "episode". If no MDS admission assessment was found, discard the discharge assessment from all subsequent steps.

Step 4. Identify all MDS admission assessments that indicate the admission to the SNF was from the hospital, another SNF or IRF. An MDS admission assessment indicates that the SNF admission was from a hospital when MDS item "A1800 Entered From" coded as "03 Acute Care Hospital" or "02 Another nursing home or swing bed" or "05 inpatient rehabilitation facility" or "09 Long Term Care Hospital". The MDS item A1600 indicates the date of entry to the SNF.

Step 5. For any admission or discharge CARE Tool item (that enters the calculation of the mobility improvement scores) with letter code "S" (activity not attempted due to safety concerns), A. Task attempted but not completed, N. Not applicable and P. Patient Refused were recoded to "1" on a six point rating scale (indicating full functional dependence).

Step 6. Apply the mobility improvement measure's exclusions (see s.11), and exclude any episode that did not involve either physical or occupational therapy. The clinical measure exclusions are detailed in S.11 (Denominator exclusion details and codes). The exclusion of episodes not involving either occupational or physical therapy is as follows:

We identify the patient as having received occupational therapy if on the MDS discharge assessment:

The total number of minutes of occupational therapy in the last 7 days (O0400B1) is greater than zero; or

The most recent occupational therapy regimen (starting on the date recorded in O0400B5, and ending on the date recorded in O0400B6) intersects the episode (beginning with the CARE admission assessment's admission date and ending with the CARE discharge assessment's discharge date).

We identify the patient as having received physical therapy if on the MDS discharge assessment:

The total number of minutes of physical therapy in the last 7 days (O0400C1) is greater than zero; or

The most recent physical therapy regimen (starting on the date recorded in O0400C5, and ending on the date recorded in O0400C6) intersects the episode (beginning with the

CARE admission assessment's admission date and ending with the CARE discharge assessment's discharge date).

If the episode involves neither occupational nor physical therapy, as identified above, then exclude it from all subsequent steps in the calculation.

Step 7. Map the CARE Tool B5a (walking) and B5b (wheeling) items to obtain a harmonious 1-6 score for all assessments, and recode walking items C7b, C7c, C7d and C7e to 1=dependent if resident cannot walk. First, consolidate the four sub-items B5a1, B5a2, B5a3 and B5a4 corresponding to different distances the resident can walk (if the patient can walk); and the four sub-items B5b1, B5b2, B5b3 and B5b4 corresponding to different distances the resident can wheel (if the patient cannot walk). To do this, use the crosswalk presented in Figure A1 in the Appendix. Call the resulting two items B5a and B5b.

Second, consolidate the B5a and B5b items into a harmonious summary item called B5. To do this use the crosswalk presented in Figure A1 in the Appendix. This is the item used in the calculation of mobility outcome scores in the subsequent steps.

Finally, if the patient is unable to walk (i.e., no values for the B5a and C7 items), recode each item C7a, C7b, C7d and C7e to 1 = dependent.

Step 8. For each episode remaining after Step 6, using the CARE Tool items as transformed in Step 7, calculate a preliminary admission score and a discharge score as the sum of the values for the following CARE tool mobility items B1 (Lying to sitting on side of bed), B2 (Sit to stand), B3 (Chair/bed-to-chair transfer), B4 (Toilet transfer), B5 (Walking/wheeling), C3 (Roll left and right), C4 (Sit to lying), C7a (One step (curb)), C7b (Walking 50 feet with two turns), C7c (Walking 12 steps), C7d (Walking four steps), C7e (Walking 10 feet on uneven surfaces).

Each of those 12 CARE Tool items takes an integer value of 1, 2, 3, 4, 5 or 6, and so the preliminary admission score will be an integer between 12 and 72, and the preliminary discharge score will be an integer between 12 and 72.

Step 9. For each episode, linearly transform the preliminary admission score and preliminary discharge score so that it lies in the range 1-100 using the following equation:

["transformed mobility admission score"]=1.65×["preliminary mobility admission score"]-18.8

["transformed mobility discharge score"]=1.65×["preliminary mobility discharge score"]-18.8

Step 10. For each episode, calculate the episode-level change score by subtracting the transformed discharge score from the transformed admission score. Each score will lie between -99 and 99.

Step 11. Calculate the national average change score as the simple mean of all episode-level change scores calculated in Step 10.

Step 12. For each episode, calculate the predicted change score using the risk adjustment methodology detailed in S.15a. That is, having prepared the risk adjustment variables in the way described in S.15a, apply the equation: [predicted change score] = 33.61 - 1.56×[patient is 85 years or older] -9.11×[dialysis while a resident] -5.08×[entered from SNF] -2.81×[oxygen while a patient] -4.23×[unhealed pressure ulcers] -8.85×[mental status] -4.75×[resident mood] -9.30×[psychiatric conditions] -6.91×[feeding tube or IV feeding] -4.10×[suctioning or tracheotomy] -3.98×[infections of the foot].

Step 13. For each episode, calculate the risk adjusted change score using the actual change score calculated in Step 10, the national average change score calculated in Step 11, and the predicted change score calculated in Step 12. The risk adjusted change score is: [risk adjusted change score] = ([national average change score] - [predicted change score]) + [actual change score].

Step 14. Exclude any facility that has fewer than 30 episodes for which we could calculate a risk adjusted change score.

Step 15. For each facility remaining after Step 14, calculate its mobility improvement score as the simple mean of the risk adjusted change scores calculated in Step 13. 128727| 142381| 142370

2613 CARE: Improvement in Self Care

The facility-level self care improvement scores are calculated using the following 14 steps.

Step 1. Choose the 12 month window for which we will select episodes. This is the four consecutive calendar quarters ending with the most recent calendar quarter for which both MDS data and CARE tool data are available for use in the measure.

Step 2. Identify all MDS discharge assessments (in which we understand the CARE tool items will be embedded) with a discharge date that fell within the 12 month window identified in Step 1.

Step 3. For each MDS tool discharge assessment identified in Step 2, identify the corresponding MDS admission assessment (in which we understand the CARE tool items will be embedded). An MDS assessment is identified as an admission assessment if A0310F == "01" (entry record). Note that the admission date may lie before the 12 month window defined in Step 1. The period of time from the admission date (corresponding with the MDS admission assessment) through to the discharge date (corresponding with the MDS discharge assessment) is called an "episode". If no MDS admission assessment was found, discard the discharge assessment from all subsequent steps.

Step 4. Identify all MDS admission assessments that indicate the admission to the SNF was from the hospital, another SNF or IRF. An MDS admission assessment indicates that the SNF admission was from a hospital when MDS item "A1800 Entered From" coded as "03 Acute Care Hospital" or "02 Another nursing home or swing bed" or "05 inpatient rehabilitation facility" of "09 Long Term Care Hospital". The MDS item A1600 indicates the date of entry to the SNF.

Step 5. For any admission or discharge CARE tool item (that enters the calculation of the self-care improvement scores) with letter code "S" (activity not attempted due to safety concerns), A. Task attempted but not completed, N. Not applicable and P. Patient Refused were recoded to "1" on a six point rating scale (indicating full functional dependence).

Step 6. Apply the self care improvement measure's exclusions (see s.11), and exclude any episode that did not involve either physical or occupational therapy. The clinical measure exclusions are detailed in S.11 (Denominator exclusion details and codes). The exclusion of episodes not involving either occupational or physical therapy is as follows:

We identify the patient as having received occupational therapy if on the MDS discharge assessment:

The total number of minutes of occupational therapy in the last 7 days (O0400B1) is greater than zero; or

The most recent occupational therapy regimen (starting on the date recorded in O0400B5, and ending on the date recorded in O0400B6) intersects the episode (beginning with the CARE admission assessment's date and ending with the CARE discharge assessment's date).

We identify the patient as having received physical therapy if on the MDS discharge assessment:

The total number of minutes of physical therapy in the last 7 days (O0400C1) is greater than zero; or

The most recent physical therapy regimen (starting on the date recorded in O0400C5, and ending on the date recorded in O0400C6) intersects the episode (beginning with the CARE admission assessment's admission date and ending with the CARE discharge assessment's discharge date).

If the episode involves neither occupational nor physical therapy, as identified above, then exclude it from all subsequent steps in the calculation.

Step 7. For each episode remaining after Step 6, calculate a preliminary admission score and a discharge score as the sum of the values for the following CARE tool self care items A1 (Eating), A3 (Oral Hygiene), A4 (Toilet Hygiene), A5 (Upper Body Dressing), A6 (Lower Body Dressing), C1 (Wash Upper Body), C2 (Shower/Bath Self), C6 (Putting on/Taking off Footwear).

Each of those 8 CARE tool items takes an integer value of 1, 2, 3, 4, 5 or 6, and so the preliminary admission score will be an integer between 8 and 48, and the preliminary discharge score will be an integer between 8 and 48.

Step 8. For each episode, linearly transform the preliminary admission score and preliminary discharge score so that it lies in the range 1-100 using the following equation:

["transformed self-care admission score"]=2.475×["preliminary self-care admission score"]-18.8

["transformed self-care discharge score"]=2.475×["preliminary self-care discharge score"]-18.8

Step 9. For each episode, calculate the episode-level change score by subtracting the transformed discharge score from the transformed admission score. Each score will lie between -99 and 99.

Step 10. Calculate the national average change score as the simple mean of all episode-level change scores calculated in Step 9.

Step 11. For each episode, calculate the predicted change score using the risk adjustment methodology detailed in S.15a. That is, having prepared the risk adjustment variables in the way described in S.15a, apply the equation: [predicted change score] = 25.98 - 0.28×[patient is 85 years or older] -4.43×[dialysis while a patient] -3.83×[entered from SNF] -2.37×[oxygen while a patient] -1.06×[catheterization/ostomy] -2.87×[unhealed pressure ulcers] -7.12×[mental status] -3.33×[resident mood] -8.11×[psychiatric conditions] - 4.05×[feeding tube or IV feeding] -5.43×[suctioning or tracheotomy] -2.76×[infections of the foot].

Step 12. For each episode, calculate the risk adjusted change score using the actual change score calculated in Step 9, the national average change score calculated in Step 10, and the predicted change score calculated in Step 11. The risk adjusted change score is:

["risk adjusted change score"]=(["national average change score"]-["predicted change score"])+["actual change score"]

Step 13. Exclude any facility that has fewer than 30 episodes for which we could calculate a risk adjusted change score.

Step 14. For each facility remaining after Step 13, calculate its self care improvement score as the simple mean of the risk adjusted change scores calculated in Step 12. 128727| 142370

Submission items

2778 Functional Change: Change in Mobility Score for Long Term Acute Care Facilities

5.1 Identified measures:

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value:

2612 CARE: Improvement in Mobility

5.1 Identified measures:

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: Not Applicable

5b.1 If competing, why superior or rationale for additive value: Not Applicable

2613 CARE: Improvement in Self Care

5.1 Identified measures:

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value: Not Applicable

Comparison of NQF 0177 with NQF 0209

0177 Improvement in pain interfering with activity
0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Steward

0177 Improvement in pain interfering with activity

Centers for Medicare & Medicaid Services

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

National Hospice and Palliative Care Organization

Description

0177 Improvement in pain interfering with activity

The percentage of home health episodes of care during which the frequency of the patient's pain when moving around improved.

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Percentage of patients who report being uncomfortable because of pain at the initial assessment who, at the follow up assessment, report pain was brought to a comfortable level within 48 hours.

Type

0177 Improvement in pain interfering with activity

Outcome

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Outcome: PRO-PM

Data Source

0177 Improvement in pain interfering with activity

Electronic Health Data The measure is calculated based on the data obtained from the Home Health Outcome and Assessment Information Set (OASIS), which is a statutorily required core standard assessment instrument that home health agencies integrate into their own patient-specific, comprehensive assessment to identify each patient's need for home care. The instrument is used to collect valid and reliable information for patient assessment, care planning, and service delivery in the home health setting, as well as for the home health quality assessment and performance improvement program. Home health agencies are required to collect OASIS data on all non-maternity Medicare/Medicaid patients, 18 or over, receiving skilled services. Data are collected at specific time points (admission, resumption of care after inpatient stay, recertification every 60 days that the patient remains in care, transfer, death, and at discharge). HH agencies are required to encode and transmit patient OASIS data to the OASIS repositories Each HHA has on-line access to outcome and process measure reports based on their own OASIS data submissions, as well as comparative state and national aggregate reports, case mix reports, and potentially avoidable event reports. CMS regularly collects OASIS data for storage in the national OASIS repository, and makes measures based on these data (including the Improvement in Pain Interfering with Activity measure) available to consumers and to the general public through the Medicare Home Health Compare website.

The current version of OASIS is OASIS C2. Starting January 1, 2019, OASIS D will be in effective. Differences include added, deleted, modified items and responses.

Available at measure-specific web page URL identified in S.1 Attachment isc_mstr_-V2.21.1-_FINAL_08-15-2017-636776316361945348.xlsx

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Instrument-Based Data Data specific to measure (initial question on admission and follow-up question asked between 48 and 72 hours of admission) recorded by hospice. Data can be part of patient record or recorded and tracked separately.

Data are aggregated and submitted quarterly by hospices to NHPCO which maintains a national data repository. NHPCO analyzes the data and produces a quarterly national level

report for hospices as a source of comparative data for use in performance improvement initiatives.

Available at measure-specific web page URL identified in S.1 No data dictionary

Level

0177 Improvement in pain interfering with activity

Facility

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Facility, Other

Setting

0177 Improvement in pain interfering with activity

Home Care

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Home Care

Numerator Statement

0177 Improvement in pain interfering with activity

The number of home health episodes of care where the value recorded on the discharge assessment indicates less frequent pain at discharge than at start (or resumption) of care.

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Patients whose pain was brought to a comfortable level (as defined by patient) within 48 hours of initial assessment.

Numerator Details

0177 Improvement in pain interfering with activity

The number of home health episodes where the value recorded for the OASIS-C2 item M1242 ("Frequency of Pain Interfering with Activity") on the discharge assessment is numerically less than the value recorded on the start (or resumption) of care assessment, indicating less frequent pain interfering with activity at discharge.

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Number of patients who replied "yes" when asked if their pain was brought to a comfortable level within 48 hours of initial assessment.

Denominator Statement

0177 Improvement in pain interfering with activity

Number of home heath episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure- specific exclusions.

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Patients who replied "yes" when asked if they were uncomfortable because of pain at the initial assessment.

Denominator Details

0177 Improvement in pain interfering with activity

All home health episodes of care (except those defined in the denominator exclusions) in which the patient was eligible to improve in pain interfering with activity or movement (i.e., were not at the optimal level of health status according to the "Frequency of Pain Interfering" OASIS-C2 item M1242).

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Patients who are able to self report pain information and replied "yes" when asked if they were uncomfortable because of pain at the initial assessment.

Exclusions

0177 Improvement in pain interfering with activity

All home health episodes where there is no pain reported at the start (or resumption) of care assessment, or the patient is non-responsive, or the episode of care ended in transfer to inpatient facility or death at home, or the episodes is covered by one of the generic exclusions.

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Patients who do not report being uncomfortable because of pain at initial assessment (i.e., patients who reply "no" to the question "Are you uncomfortable because of pain?"

Patients under 18 years of age

Patients who cannot self report pain

Patients who are unable to understand the language of the person asking the initial and follow up questions

Exclusion Details

0177 Improvement in pain interfering with activity

Home health episodes of care for which [1] at start/resumption of care OASIS item M1242 = 0, indicating the patient had no pain; OR [2] at start/ resumption of care, OASIS item M1700 "Cognitive Functioning" is 4, or M1710 "When Confused" is NA, or M1720 "When Anxious" is NA, indicating the patient is non-responsive; OR [3] The patient did not have a discharge assessment because the episode of care ended in transfer to inpatient facility or death at home; OR [4] All episodes covered by the generic exclusions:

a. Pediatric home health patients - less than 18 years of age as data are not

collected for these patients.

b. Home health patients receiving maternity care only.

c. Home health clients receiving non-skilled care only.

d. Home health patients for which neither Medicare nor Medicaid are a payment

source.

e. The episode of care does not end during the reporting period.

f. If the agency sample includes fewer than 20 episodes after all other patient-level exclusions are applied, or if the agency has been in operation less than six months, then the data is suppressed from public reporting on Home Health Compare.

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Patients who replied 'No" to initial question: "Are you uncomfortable because of pain?"

Patients under 18 years of age

Patients who are unable to understand the language of the person asking the initial and follow up questions

Patients who cannot self report pain

Risk Adjustment

0177 Improvement in pain interfering with activity

Statistical risk model

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

No risk adjustment or risk stratification

Stratification

0177 Improvement in pain interfering with activity

Not Applicable

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

None

Type Score

0177 Improvement in pain interfering with activity

Rate/proportion better quality = higher score

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Rate/proportion better quality = higher score

Algorithm

0177 Improvement in pain interfering with activity

1. Define an episode of care (the unit of analysis): Data from matched pairs of OASIS assessments for each episode of care (start or resumption of care paired with a discharge or transfer to inpatient facility) are used to calculate individual patient outcome measures.

2. Identify target population: All episodes of care ending during a specified time interval (usually a period of twelve months), subject to generic and measure-specific exclusions.

Generic exclusions: Episodes of care ending in discharge due to death (M0100_ASSMT_REASON[2] = 08).

Measure specific exclusions: Episodes of care ending in transfer to inpatient facility (M0100_ASSMT_REASON[2] IN (06,07), patients who are comatose or non-responsive at start/resumption of care (M1700_COG_FUNCTION[1] = 04 OR M1710_WHEN_CONFUSED[1] = NA OR M1720_WHEN_ANXIOUS[1] = NA), and patients with no pain interfering with activity at start/resumption of care (M1242_PAIN_FREQ_ACTVTY_MVMT [1] = 00).

Cases meeting the target outcome are those where the patient has less pain interfering with activity at discharge than at start/resumption of care:

M1242_PAIN_FREQ_ACTVTY_MVMT[2] < M1242_PAIN_FREQ_ACTVTY_MVMT[1].

3. Aggregate the Data: The observed outcome measure value for each HHA is calculated as the percentage of cases meeting the target population (denominator) criteria that meet the target outcome (numerator) criteria.

4. Risk Adjustment: The expected probability for a patient is calculated using the following formula:

$P(x)=1/(1+e^{\wedge}(-(a+?¦?b\_i\ x\_i\ ?))\ )$

Where:

P(x) = predicted probability of achieving outcome x

a = constant parameter listed in the model documentation

bi = coefficient for risk factor i in the model documentation

xi = value of risk factor i for this patient. See the attached zipped risk adjustment file for detailed lists and specifications of risk factors.

Predicted probabilities for all patients included in the measure denominator are then averaged to derive an expected outcome value for the agency. This expected value is then used, together with the observed (unadjusted) outcome value and the expected value for the national population of home health agency patients for the same data collection period, to calculate a risk-adjusted outcome value for the home health agency. The formula for the adjusted value of the outcome measure is as follows:

$X(A\_ra)= X(A\_obs)+ X(N\_exp)-X(A\_exp)$

Where:

X(Ara) = Agency risk-adjusted outcome measure value

X(Aobs) = Agency observed outcome measure value

X(Aexp) = Agency expected outcome measure value

X(Nexp) = National expected outcome measure value

If the result of this calculation is a value greater than 100%, the adjusted value is set to 100%. Similarly, if the result is a negative number the adjusted value is set to zero. 121650| 123185| 126284| 134819| 137428| 138696| 140506| 141130| 141592| 142923| 138874| 141015

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

Calculation of measure score:

1. Identify number of patients admitted to hospice services during the timeframe of interest (e.g., CY quarter).

2. Identify number of admitted patients who were able to respond to the question "Are you uncomfortable because of pain?" during the initial assessment and were not excluded because they met the exclusion criteria.

3. Identify the number of patients who responded "yes" to the question "Are you uncomfortable because of pain?" during the initial assessment.

4. Identify the number of patients who were contacted between 48 and 72 hours of the initial assessment and responded "yes" to the question: "Was your pain brought to a comfortable level within 48 hours of the start of hospice services?" This number is the numerator.

4. Divide the number of patients whose pain was brought to a comfortable level within 48 hours after initial assessment by the number of patients who reported they were uncomfortable because of pain at the initial assessment.

2. Multiply this number by 100 to get the hospice's score as a percent. This is the proportion of patients who reported being uncomfortable because of pain at initial assessment whose pain was brought to a comfortable level within 48 hours of the start of hospice services.

NOTE: A Problem Score may also calculated as a complement to the measure score The Problem Score is calculated by dividing the number of patients whose pain was NOT brought to a comfortable level within 48 hours after the initial assessment by the number of patients who were uncomfortable on admission. Multiply this number by 100 to get the hospice's score as a percent. A lower score/percentile = better performance. The Problem Score is useful for assessing the proportion of patients for whom comfort was not achieved and subsequent root cause analysis for quality improvement purposes.

Submission items

0177 Improvement in pain interfering with activity

5.1 Identified measures:

5a.1 Are specs completely harmonized? No

5a.2 If not completely harmonized, identify difference, rationale, impact: see 5b.1.

5b.1 If competing, why superior or rationale for additive value: A search using the NQF QPS for outcome measures reporting rates of improvement in pain identified two measures used in the hospice setting (NQF# 0676, 0677 - Percent of Residents Who Self-Report Moderate to Severe Pain). These measures are focused on inpatient (not homebound) patients, are calculated using data that are not currently collected in the home health setting, and do not consider the functional impact of pain.

0209 Comfortable Dying: Pain Brought to a Comfortable Level Within 48 Hours of Initial Assessment

5.1 Identified measures:

5a.1 Are specs completely harmonized?

5a.2 If not completely harmonized, identify difference, rationale, impact:

5b.1 If competing, why superior or rationale for additive value: N/A