NATIONAL QUALITY FORUM

Memo

To: Consensus Standards Approval Committee (CSAC)

From: Taroon Amin, MPH, MA; Andrew Lyzenga, MPP; Adeela Khan, MPH, Zehra Shahab, MPH

Re: All Cause Admissions and Readmissions Member Voting Results

Date: October 6, 2014

The CSAC will review Standing Committee recommendations and NQF member voting results from the *All Cause Admissions and Readmissions* project on its October 14, 2014 conference call.

This memo includes a summary of the project, measures under consideration, and themes identified from and responses to the public and member comments.

This project followed the National Quality Forum's (NQF) version 1.9 of the Consensus Development Process (CDP). Member voting on these recommended measures ended on September 24, 2014.

Accompanying this memo are the following documents:

1. **All Cause Admissions and Readmissions Draft Report**. The draft report has been updated to reflect the changes made following Standing Committee discussion of public and member comments. The complete draft report and supplemental materials are available on the project page.
2. **Comment table.** Staff has identified themes within the comments received. This table lists 170 comments received and the NQF/Standing Committee responses.

CSAC ACTION REQUIRED

- Review the overarching themes identified from the Admissions and Readmissions Project
- Discuss the measures and the membership voting results for measures that the Standing Committee recommended for endorsement.
- Review the measure-specific issues and the member voting results for the measures that did not reach consensus (between 40% and 60% in support) or were not recommended by the NQF membership:
    - 0327 Risk-Adjusted Average Length of Inpatient Hospital Stay
    - 0505 Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization
    - 0695 Hospital 30-Day Risk-Standardized Readmission Rates following Percutaneous Coronary Intervention (PCI)
    - 2375 PointRight OnPoint-30 SNF Rehospitalizations
    - 2380 Rehospitalization During the First 30 Days of Home Health
    - 2393 Pediatric All-Condition Readmission Measure
    - 2414 Pediatric Lower Respiratory Infection Readmission Measure

- 2496 Standardized Readmission Ratio (SRR) for dialysis facilities
- 2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)
- 2503 Hospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries
- 2504 30-day Rehospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries
- 2505 Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health
- 2510 Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)
- 2512 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (LTCHs)
- 2513 Hospital 30-Day All-Cause Risk-Standardized Readmission Rate (RSRR) following Vascular Procedures
- 2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate
- 2515 Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery
- 2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy

Next Steps:

- NQF will go forward with an additional consensus building process; specifically, an all-member call to better understand concerns on the measures that were not approved by the NQF membership.
- Feedback from this consensus-building process of the NQF membership will be presented for the CSAC's review at its next conference call on November 12.

MEASURES IN THE ADMISSIONS AND READMISSIONS PROJECT

Measures Recommended for Endorsement by the Standing Committee:

- 0505 Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization
- 0695 Hospital 30-Day Risk-Standardized Readmission Rates following Percutaneous Coronary Intervention (PCI)
- 2375 PointRight OnPoint-30 SNF Rehospitalizations
- 2380 Rehospitalization During the First 30 Days of Home Health
- 2393 Pediatric All-Condition Readmission Measure
- 2414 Pediatric Lower Respiratory Infection Readmission Measure
- 2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)
- 2503 Hospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries
- 2504 30-day Rehospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries

- 2505 Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health
- 2510 Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)
- 2513 Hospital 30-Day All-Cause Risk-Standardized Readmission Rate (RSRR) following Vascular Procedures
- 2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate
- 2515 Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery
- 2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy

Measures where Consensus was Not Reached by the Standing Committee

- 0327 Risk-Adjusted Average Length of Inpatient Hospital Stay
- 2496 Standardized Readmission Ratio (SRR) for dialysis facilities
- 2512 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (LTCHs)

Background

Unnecessary admissions and early readmissions to acute care facilities are the subject of ever-increasing scrutiny and are an important focus for quality improvement by the health care system. Previous studies have shown that nearly one in five Medicare patients is readmitted to the hospital within 30 days of discharge, including many patients returning via the emergency room, costing upwards of $26 billion annually. Multiple entities across the health care system, including hospitals, post-acute care facilities, skilled nursing facilities, and others, all have a responsibility to ensure high quality care transitions to reduce unplanned admissions and readmissions to the hospital.

The Readmissions and Admissions Portfolio of measures is growing rapidly. Currently, NQF's portfolio of Admissions and Readmissions measures includes measures for admissions, readmissions, and length of stay. The portfolio contains ten outcome measures, three of which have been evaluated by the Admissions and Readmissions Standing Committee during this project. While some of the oldest measures have been endorsed since 2008, many of the condition-specific and all-cause measures have come in the last two years. Due to the ever-increasing scrutiny on unnecessary admissions and readmissions, these measures are part of an important focus on quality improvement within the health care system. As such, several of the measures in the portfolio are in use for a number of federal programs, including the Home Health Quality Reporting Program, the Ambulatory Surgical Center Quality Reporting Program, the Hospital Inpatient Quality Reporting Program, and the Hospital Readmission Reduction Program. Additionally, the condition-specific measures for heart failure, acute myocardial infarction, and pneumonia are in use in at least four communities involved in the Aligning Forces for Quality initiative. Lastly, as part of on-going work with the NQF-convened Measure Applications Partnership (MAP), several of the Readmission measures are included in the Care Coordination Family of Measures.

On May 5-6, 2014 the All-Cause Admissions and Readmissions Standing Committee, which includes 23 members, evaluated 15 new measures and 3 measures undergoing maintenance review against NQF's standard evaluation criteria. Fifteen measures were recommended for endorsement, while for the remaining three, the Committee did not reach consensus. All 18 measures went forward to the NQF membership for vote.

DRAFT REPORT

The All Cause Admissions and Readmissions Draft Report presents the results of the evaluation of 18 measures considered under the CDP. Fifteen were recommended for endorsement as voluntary consensus standards suitable for accountability and quality improvement, and three were measures where consensus was not reached. The measures were evaluated against the 2013 version of the measure evaluation criteria.

	MAINTENANCE	NEW	TOTAL
Measures considered	3	15	18
Withdrawn from consideration	5	0	5
Recommended	2	13	15
Consensus Not Reached	1	2	3

COMMENTS AND THEIR DISPOSITION

NQF received 170 comments from 36 organizations/individuals (including 25 Member organizations) pertaining to the general draft report and to the measures under consideration. A table of comments submitted during the post-meeting 30-day comment period, with the responses to each comment and the actions taken by the Standing Committee and measure developers, is posted to the project page.

Additional Comments [hyperlinked] were submitted by:

3M, Health Information Systems, Inc.
Fresenius Medical Care
Children's Hospital Association
American Society of Nephrology
Kidney Care Partners

APPENDIX A: COMMENT THEMES AND COMMITTEE RESPONSES

Measure Specific comments about specifications or testing were forwarded to the developers, who were invited to respond.

At its review of all comments, the Standing Committee had the benefit of developer responses. Committee members focused their discussion on measures or topic areas with the most significant and recurring issues.

Theme 1- Adjustment for Socio-demographic Status

Commenters focused heavily on the topic of risk adjustment using socio-demographic status (SDS) for readmission outcome measures. One commenter provided support to the current NQF guidance indicating that factors associated with disparities in care (i.e., race, ethnicity, socio-demographic factors) should not be included in risk adjustment models. Many other commenters raised strong concern with moving forward with endorsement of outcome readmission measures without socio-demographic adjustment. Commenters encouraged the Committee to defer endorsement decisions until after the SDS Expert Panel's recommendations are finalized and measure developers have a chance to update/test their measures. Those commenters noted that if a decision on these measures is required, the measures should be challenged on the basis of the measure's validity due to the lack of SDS adjustment, or the Standing Committee should limit endorsement for one year with a required ad-hoc review on the measures in this project. Commenters noted that endorsing these measures without SDS adjustment may cause serious unintended consequences for providers treating vulnerable populations.

> **NQF Response:** Throughout the measure review process NQF staff guided the Committee to evaluate these measures using the current NQF measure evaluation guidance, which indicates that factors associated with disparities in care (i.e., race, ethnicity, socio-demographic factors) should not be included in risk adjustment models. In another concurrent project at NQF, an Expert Panel on Risk Adjustment for Sociodemographic Factors was charged with reviewing this guidance and developing a set of recommendations on the inclusion of socioeconomic status (SES) and other factors, such as race and ethnicity, in risk adjustment for outcome and resource use performance measures. The NQF Board of Directors met to consider these recommendations developed by this Expert Panel and approved the implementation of a trial period for performance measures where adjustment for socio-demographic factors may be appropriate. NQF is currently developing an implementation plan and timeline for this trial period. NQF has issued a final report, which includes recommendations by the Expert Panel.
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> For projects that are already in progress, such as the Admissions and Readmissions Endorsement Project, NQF will continue to guide committees to operate under the preexisting criteria, guidance, and policy that was in place when this project started.

Committee Response: The Committee recognizes the commenters' concern that socio-demographic factors may potentially influence readmission rates from various settings, and discussed the topic extensively during the in-person meeting. However, the Committee's measure review and evaluation was informed by the current NQF measure evaluation guidance which indicates factors associated with disparities in care (i.e., race, ethnicity, socio-demographic factors) should not be included in risk adjustment models.

The Committee continues to operate under the current NQF guidance yet cautions that differences in readmission performance across hospitals are influenced by many different factors. These include differences driven, in part, by variation in hospital quality and the availability of community resources.

Recognizing the number of public and member comments on the topic, along with the Committee's own concerns, the Committee strongly encourages CMS and other measure developers in this project to update their measure specifications, retest, and resubmit these measures for review by the Standing Committee during the trial period recently approved by the NQF Board and informed by the report issued by the Expert Panel on Risk Adjustment for Sociodemographic Factors. The Committee also agrees that efforts should be undertaken to educate the measurement community on the recommendations by the SDS Expert Panel prior to implementing the trial period in measure endorsement projects. Additional information on the Committee's deliberations regarding SDS can be found in the Overarching Issues Section of the Voting Draft Report.

Theme 2- Harmonization

Overall, commenters noted that a lack of harmonization between similar measures or selection of a best-in-class measure could lead to confusion among patients and providers, and may also cause increased measurement burden. Commenters recommended that the Committee revisit the competing measure sets for CABG, Home Health, and SNF-readmissions, and either recommend a 'best in class' measure or defer the endorsement of the measures until the developers can develop a single hybrid measure.

2375 PointRight OnPoint-30 SNF Rehospitalizations [AHCA] and 2510 Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM) [CMS]

Commenters noted that Measure 2375 lacked adjustment for planned readmissions, an issue discussed by the Committee, and while Measure 2510 does include some planned readmissions; commenters noted the measure lacks robust risk adjustment since it relies on administrative claims to capture patient severity. Commenters suggested harmonizing these two measures into one hybrid measure that combines data from both the Minimum Data Set (MDS) and claims. These commenters suggested that MDS data in Measure 2375 may enable a more robust risk adjustment methodology, but argued that the type of "planned readmission" algorithm used by CMS could strengthen the measure. One commenter also encouraged CMS to exclude acute psychiatric inpatient stays from the index admission.

Committee Response: The Committee discussed Harmonization between Measure 2510 and Measure 2375 during web-meetings on May 16 and August 6. In summary, the

Committee noted that the principal differences between these measures are their data sources, the inclusion of planned readmissions, readmissions that may occur once the patient is discharged from the SNF, and identification of patient characteristics that impact risk adjustment. The Committee accepts CMS's approach for identifying readmissions that are likely to have been planned, agreeing that these readmissions should be removed them from the numerator and the denominator.

The Committee agrees with the developer's assessment, that full harmonization across both measures is unlikely to be obtained, and that the two measures are capable of supporting multiple quality needs when operating in tandem. However, some Members suggest that the developers of Measure 2375 should consider eliminating planned readmissions similar to Measure 2510.

The Committee notes, that a few members have expressed concern that endorsing multiple measures would be confusing for consumers and patients.

Note: Following the August 6 Post-Comment Call, the Committee voted to uphold their initial recommendation of both Measure 2510 and Measure 2375.

2515 Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery [CMS] and 2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate [STS]

Commenters disagreed that the two CABG measures are harmonized to the extent possible. Commenters discussed the differences between the two CABG measures, noting that Measure 2515 uses administrative claims and can feasibly incorporate the CMS "planned readmissions" algorithm, while Measure 2514 uses clinical data that is potentially important for high-volume facilities and facilities with higher-risk patients. Commenters encouraged the Committee to defer endorsement decisions and recommended the developers collaborate on a single hybrid measure, noting that the CABG readmission measure should be analogous to the PCI readmission measure (Measure 0695), which links clinical registry data from the American College of Cardiology registry with Medicare claims data and removes planned readmissions from the outcome.

Other comments asked the developer to provide additional data on the variance in measurement between these two measures, noting that data submitted for Measure 2515 suggests that nearly 8 percent of hospitals have a difference of one percent or more in their results. Comments cautioned that while the differences may appear small, they matter significantly in the context of pay-for-performance programs.

Committee Response: The Committee discussed Measure 2514 and Measure 2515 during web-meetings on May 16 and August 6. In summary, the Committee noted that the two measures are harmonized along several measure dimensions, including measure cohort, assessment of isolated CABG, and inclusion of VAD procedures. The principal difference between these two measures is the data source. Committee members reached agreement that the STS registry used for Measure 2514 would provide feedback in a timely manner, and may therefore be more appropriate for

internal quality improvement. Committee Members also agree that Measure 2515, which is based on claims, may be more suitable for public reporting and use in federal programs at this time since performance could be calculated for all hospitals using claims, whereas the STS registry data covers only those who participate in the registry.

The Committee notes, that a few members have expressed concern that endorsing multiple measures would be confusing for consumers and patients.

Note: Following the August 6 Post-Comment Call, the Committee voted to uphold their initial recommendation of both Measure 2514 and Measure 2515.

2380 Rehospitalization During the First 30 Days of Home Health [CMS] and 0171 Acute care hospitalization (risk adjusted)[CMS]

Commenters expressed concerns with recommending Measure 2380, citing that the measure is similar to the already-endorsed Measure 0171. Commenters noted that these measures have different time windows, urging the Committee to consider whether one time window is more clinically meaningful than the other and requesting that CMS synthesize the two measures into one.

NQF Response: Measure 2380 competes directly with Measure 0171: Acute Care Hospitalization—Percentage of Home Health stays in which patients were admitted to an acute care hospital during the 60 days following the start of the Home Health stay. However, according to NQF guidance, since Measure 0171 was not evaluated in this project the Committee will not make a best-in-class recommendation with regards to these two competing measures. A recommendation may be made at a later date.

Committee Response: The Committee discussed Measure 2380 and Measure 0171 during web-meetings on May 16 and August 6. The Committee agrees that the measure specifications for Measure 0171 and Measure 2380 are harmonized along several measure dimensions, including Data source, Population, Denominator Exclusions, Numerator, and Risk Adjustment methodology. The Committee notes that the measures use two different data sources, and acknowledged that they have slightly different data definitions, since Measure 2380 is all-cause readmission. Ultimately the Committee agrees that Measure 2380 should move forward, agreeing that these two measures address distinct domains of care under the CMS Quality Strategy and reflect related but distinct care quality concepts.

2505 Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health [CMS] and 0173 Emergency Department Use without Hospitalization [CMS]

Commenters expressed concerns with recommending Measure 2505, suggesting that the measure is similar to the already endorsed Measure 0173. Commenters noted that Measure 2505 counts ED use during the first 30 days of home health, while measure 0173 counts ED use within the first 60 days of home health, urging the Committee to consider whether one of these time windows is more clinically meaningful than the other and requesting that CMS synthesize the two measures into one.

NQF Response: Measure 2505 competes directly with Measure 0173 Emergency Department Use without Hospitalization—Percentage of home health stays in which patients used the emergency department but were not admitted to the hospital during the 60 days following the start of the home health stay. However, according to NQF guidance, since Measure 0173 was not evaluated in this project the Committee will not make a recommendation with regards to these two competing measures. A recommendation may be made at a later date.

Committee Response: The Committee discussed Measure 2505 and Measure 0173 during web-meetings on May 16 and August 6. The Committee agrees that the measure specifications for Measure 0173 and Measure 2505 are harmonized along several measure dimensions, including Data source, Population, Denominator Exclusions, Numerator, and Risk Adjustment methodology. The Committee notes that the measures address different care process and different categories of patients, noting that at the conceptual level, Measure 2505 is trying to understand what happens to patients post-discharge. Ultimately the Committee agrees that Measure 2505 should move forward, concluding that these two measures address distinct domains of care under the CMS Quality Strategy and reflect related but distinct care quality concepts.

Theme 3 – Relationship between admissions and readmissions

Some commenters observed that care transition improvement efforts and other community-oriented activities to reduce readmissions can also lead to reduced *admissions* as continuity of care is improved and other health benefits are achieved in the community. Commenters noted that this may lead to the appearance of higher readmission rates in these communities as the measure denominator (i.e., admissions) may decrease more quickly than the numerator (i.e., readmissions), when in fact the communities' quality improvement efforts have worked as intended, resulting in these communities effectively being penalized for their success.

Committee Response: The Committee recognizes that this could be a potential unintended consequence of readmission measures, and urges CMS to monitor these issues as the measures are implemented to ensure providers are not being unfairly penalized. The Committee also recommends that measure implementers consider pairing readmissions measures with measures of admission rates, community-level admissions/readmission rates per 1,000, or other countervailing factors to ensure that provider performance is appropriately assessed.

Theme 4 – Provider Attribution

Commenters expressed concern over the way performance is attributed for a number of the readmission measures, including Measure 2380: Rehospitalization During the First 30 Days of Home Health, Measure 2505: Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health, and Measure 2496: Standardized Readmission Ratio (SRR) for dialysis facilities.

Commenters noted that home health agencies may not be the appropriate locus of responsibility, noting that there is limited evidence on the interventions that home health agencies can take to influence re-hospitalization or ED use. Similarly, commenters questioned

whether it would be appropriate to hold dialysis facilities accountable for readmissions given their relatively limited role in management of care transitions.

> **Committee Response:** Upon review of submitted comments, the Committee determined that this issue had been discussed and addressed to its satisfaction at the in-person meeting. The Committee agrees to uphold the initial endorsement recommendations citing that care transition measures are needed to promote coordination and shared accountability across the care continuum. These include setting specific admission and readmissions measure that address the unique needs related to post-acute care. Readmission measurement should reinforce that all stakeholders' have a responsibility to collaborate to improve performance on this important issue health care quality. While many settings may not have been historically responsible for admissions and readmissions into hospitals, this quality problem requires new roles for each stakeholder to make progress on improvement.

Theme 5 –Evidence Requirements for Outcome Measures

Several commenters raised concerns about the conditions required for an outcome measure to meet NQF's evidence subcriterion. In accordance with the 2011 recommendations of an NQF-convened Evidence Task Force, a Committee may judge an outcome measure to have met the evidence subcriterion if the developer has provided a plausible rationale supporting the relationship of the health outcome to at least one healthcare structure, process, intervention, or service. Some commenters suggested that this is not a sufficient level of rigor for a measure that is publicly reported and may affect provider reimbursement. These commenters urged NQF to require measure developers to submit empirical analysis to assess the linkage between the outcome and at least one process or structure, which would provide a stronger indication of whether the outcome can be improved.

> **NQF Response:** Improving health outcomes is a central goal of healthcare treatments and services (e.g. health, function, survival, symptom control). Thus, outcomes, such as admissions and readmissions are viewed as useful quality indicators since they integrate multiple care processes and disciplines involved in care. In addition, once they are measured and reported, many outcomes that were not thought to be modifiable tend to improve. This suggests that measurement stimulates identification and adoption of effective healthcare processes that can improve health outcomes for patients. For the reasons noted above, health outcomes do not necessarily require empirical evidence linking them to a known process or structure of care. Although such evidence is desirable, a rationale supporting the linkages between measures of health outcome and at least one healthcare structure, process, intervention, or service is sufficient to meet NQF's criteria of importance to measure and report. However, the Committee recognizes that the term "evidence" may not accurately reflect the underlying justification for their recommendations on measures of readmission. Therefore, in order to ensure greater clarity regarding the Committee's intent in recommending these measures for endorsement, the final report will be modified to replace the word "evidence" with "rationale" where appropriate.

MEASURE SPECIFIC COMMENTS

Measure 2496: Standardized Readmission Ratio (SRR) for dialysis facilities

NQF received 10 post-evaluation comments regarding this measure. There was one supportive comment, arguing that this measure addresses an important high priority for measurement with sufficient room for improvement in the care processes of dialysis units. The remaining comments raised concern about the measure specifications, including the numerator specifications, denominator specifications, attribution, temporal logic, risk adjustment, testing, and intended use.

Numerator Specifications

Commenters were concerned that the numerator definition relies on an accurate determination of planned admissions using codes from a non-ESRD population. Commenters encouraged validation of these codes in the ESRD population through examination of patient-level data from the CMS dry run.

Commenters raised strong concern that the numerator of acute admissions does not consider ESRD-specific patient management – noting that this list of admissions should be tailored to include nephrology–related treatment. Commenters requested clarification on whether PD catheter placement or omentectomy, vascular access creation, or transfusion for a transfusion dependent patient fall is included in the measure. The Commenter also requested clarification on how bedded outpatients and observation admissions are counted in the measure.

In addition, commenters stressed public validation of ICD-9 definitions for “non-acute readmissions” and “planned procedures”.

Denominator Specifications

Specifically, a commenter disagreed that the number of discharges should not be the determinant of the denominator, but rather the number of readmissions should be based on the total number of patients treated in a facility. Further, the commenter argued that the current measure is vulnerable to being skewed by the effect of one or two complex patients requiring frequent hospitalization.

Attribution

Many commenters challenged the notion that dialysis facilities have the ability to affect readmissions. Commenters explained that dialysis facilities often do not receive any direct communication from the discharging hospital or facility for their patients, and are not supported to have coordinated presence in multiple hospitals. One commenter noted that a patient may be readmitted before ever being seen in the dialysis unit. This commenter noted that these readmissions are not actionable by the dialysis facility and should not be included in the measure. Further, commenters noted a lack of evidence showing that changes in a dialysis unit are the factors driving performance improvement.

Additionally, a commenter noted that the majority of dialysis facilities do not have the resources for additional personnel, such as case managers, to improve care coordination between dialysis

facilities and other health care providers. This commenter argued that dialysis facilities have a role in reducing all-cause readmissions; however, these facilities may not be the locus of control to manage the coordination required.

Further, the commenter discussed that a dialysis unit has no control over a hospital's decision to re-admit a patient. The hospital physician decides whether or not to admit a patient, and many of these admissions have nothing to do with the nephrological issues being addressed by the dialysis facility and should also be excluded from the measure.

Commenters also requested clarification on the frequency of admissions that occur prior to the first post-acute visit to a dialysis facility.

Exclusions

Commenters requested clarification on how specific patient cohorts are handled in the measure. Additionally, a commenter requested clarification on how readmissions as a result of unsuccessful kidney transplants are handled in the 6 months following the transplant. Another commenter requested clarification on the rationale for excluding index hospitalizations after the patient's 12th admission in the calendar year. The commenter noted that this was a change from the original specification submitted to the Measure Applications Partnership (MAP). Further, this commenter requested clarification on why patients without complete claims histories and those who are readmitted within the 1-3 days after discharge are not excluded from the measure.

Risk Adjustment

Commenters noted concern with the validity of the two-stage random effects risk-adjustment model. In particular, they requested clarification on how the measure is impacted by communities where there is only one major hospital and/or one major dialysis facility versus communities where there is many of one or both. The Commenters also noted that the risk adjustment model should reduce the number of variables to those that are clinically relevant.

Further, another commenter noted that other comorbidities should be included in the risk adjustment model, including sickle cell trait, angiodysplasia, myelodysplasia, diverticular bleeding, and asthma. Additionally, the commenter suggested adjusting for nursing home status in the risk adjustment model. Commenters also requested clarification on whether "poisoning by nonmedical substances" includes ongoing/chronic alcohol or drug abuse and not just acute events.

Reliability and Validity testing

Commenters noted that the testing results demonstrating correlations between hospitalization and re-hospitalization do not enhance confidence in the measure. The correlations with access and urea reduction ratio (URR) are statistically significant but of very low magnitude, and the correlation with the standardized mortality ratio (SMR) also has a low magnitude. Another commenter noted that the area under the curve for the for the receiver operating characteristic

(ROC) curve (C-statistic) for the multivariable model of <0.65 is quite poor and suggests that the model is inadequate.

Commenters requested clarification on the minimum sample size required to provide a statistically stable value for the measure. They expressed concern that many individual dialysis facilities may be too small with wide confidence intervals, limiting the statistical validity of the results.

Intended use in the specific program (QIP) and its appropriateness
Commenters expressed concerns regarding the appropriateness of the intended use of this measure for the CMS ESRD Quality Incentive Program (QIP). Commenters argued that the measure should focus only on admissions that are actionable for dialysis facilities, making stratification by primary diagnosis for readmission important.

> **Committee Response:** The Committee acknowledges the myriad of concerns raised by commenters during the comment period. Many of these issues raised by the commenters were discussed during the in-person meeting.
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> Some members of the Committee continue to be concerned with attributing the readmission to the dialysis unit. Members expressed concerns that it is difficult to hold a facility responsible for a readmission which occurs prior to the dialysis facilities' first post-discharge encounter with the patient. These members note that the rationale provided by the developer demonstrating the link to readmissions and dialysis unit care processes is limited.
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> However, the Committee acknowledges that while there is limited evidence of the link between processes undertaken by dialysis facilities and readmissions, there is ample evidence demonstrating improved readmissions in other populations with chronic disease and care that is provided in the outpatient setting. The Committee agrees that efforts to reduce unnecessary admissions and readmissions back to acute care facilities should be undertaken by all members of the health care delivery system. Many committee members agreed that this includes efforts undertaken by dialysis facilities in which patients spend a considerable amount of time.
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> **Note**: The Committee took a revote on this measure, after the Post-Comment call. The Committee was unable to reach consensus on the measure and thus, the measure moved forward to NQF Member voting designated as "Consensus not Reached".

Measure 2393: Pediatric All-Condition Readmission Measure

Six comments were submitted on Measure 2393; several of these comments were supportive of the Committee's recommendation for endorsement, noting the importance of improving quality measurement in pediatric care. However, a number of specific concerns were raised about aspects of the measure. These included:

- Concerns about the measure's lack of a methodology to exclude unpreventable readmissions or readmissions unrelated to the index admission, and the lack of testing to support the absence of such exclusions
- Concerns about the adequacy of the measure's risk adjustment methodology, which some commenters suggested should incorporate additional factors

Committee Response: The Committee agrees that readmissions measurement is critical to improving care transitions for pediatric patients. While the measure that was submitted to NQF does not distinguish between related and unrelated admissions, the measure is a good start for measurement of readmissions in the pediatric population. The Committee encourages future submission of readmission measures that consider and account for preventability. However, at this time, the Committee agrees with the developers' current approach to risk adjustment and exclusions met NQF's Scientific Acceptability criteria, and are generally satisfied with the measure's reliability. The Committee further discussed these comments during the August 6 conference call, and concluded that concerns about inclusion of readmissions unrelated to the index admission are not exclusive to pediatric measures, and in fact apply to all of the readmissions measures under consideration. The Committee notes that its evaluation was limited to the measures submitted for review in this project, and suggests that until alternative measures are submitted, the measures currently under review remain a good starting point for addressing pediatric readmissions. Committee members suggest that because the measures are new and relatively unproven, it may be appropriate to use them in demonstration before they are linked to incentives. Some members of the Committee also suggest pairing these measures with length-of-stay measures to aid in efforts to monitoring for unintended consequences.

Measure 2414: Pediatric Lower Respiratory Infection Readmission Measure

Six comments were submitted on Measure 2414; comments were similar to those submitted on Measure 2393, with some commenters supporting the measure and others expressing concerns about the measure's lack of a methodology to exclude unpreventable and unrelated readmissions, as well as the adequacy of the risk adjustment model. Two commenters also expressed concerns about the exclusion of specialty and non-acute care hospitals, with one arguing that this may exclude academic pediatric hospitals from the measure.

> **Committee Response:** See Committee response for Measure 2393. In response to submitted comments, the developer clarified that the measure does not exclude pediatric academic hospitals, only non-acute care hospitals (e.g., rehabilitation hospitals) and specialty hospitals (e.g., those focused on care of specific conditions such as orthopedic conditions or congenital anomalies).

Measure 0327: Risk-Adjusted Average Length of Inpatient Hospital Stay

NQF received several comments on Measure 0327, a measure where the Committee has not yet reached consensus. Commenters noted that the measure as specified can be applied to inpatient rehabilitation facilities (IRFs), which they noted should be excluded from this measure due to the large variation in length of stay at these facilities. In addition, commenters suggested that there should be a method to adjust for outliers. Several commenters argued that Measure 0327 should be considered an efficiency measure rather than a true quality measure, and that it should be paired with quality measures to avoid unintended consequences such as reduction of

length of stay at the expense of sufficient and appropriate care. Some commenters also suggested that the measure has limited usability given its lack of specificity, and that the measure should enable providers to "drill down" to assess length of stay by diagnosis-related group.

> **Committee Response:** The Committee notes that this measure has been useful for hospitals in understanding the efficiency of their inpatient stays. The Committee also acknowledges the concerns raised by commenters on potential unintended consequences from the use of this measure. The Committee urges the developer and measure implementers to monitor for improvements in this measure at the expense of sufficient and appropriate care. The Committee requests information on any potential unintended consequences from its use from the developer as this measure is implemented.
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> **Note:** The Committee took a revote on this measure, after the Post-Comment call. The Committee was unable to reach consensus on the measure and thus, the measure moved forward to NQF Member voting designated as "Consensus not Reached".

Measure 2503: Hospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries and Measure 2504: 30-day Rehospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries

NQF received twelve comments on Measure 2503 and Measure 2504 raising similar topics across both measures. Several commenters were supportive of the measure, noting that these types of measures help providers and communities understand areas in need of improvement. These commenters noted that the measure passed all of the must-pass sub-criteria and contended that it should be recommended by the Standing Committee. Other commenters noted that the measures should be risk adjusted to appropriately assess differences in community performance. Finally, commenters also encouraged the measure developer to expand the measure to include Medicaid patients.

> **Committee Response:** The Committee agrees that this measure is critical to addressing this high-priority issue due to the large number of patients affected and the high costs associated with admissions and readmissions. During deliberations, the Committee noted concern over the lack of risk adjustment for this measure. However, the Committee agreed that risk adjustment may not be necessary because the measure is intended to be used only to evaluate the performance of a community against itself over time. The Committee reiterates that this measure should not be used to compare performance across communities due to the lack of risk adjustment. The Committee also recognizes multiple public and member comments that noted the usefulness of these measures for community-based interventions and community-level quality and utilization studies. The Committee took a revote on this measure, after the Post-Comment call and voted to recommend the measures for NQF endorsement.

Measure 2512: All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (LTCHs)

NQF received five comments on Measure 2512. Several commenters were supportive of the measure, noting that the measure addresses an important care transition for a high-priority patient population. One commenter noted that the measure might be best suited for accountable care measurement systems. Another commenter noted that the measure should take into consideration the unique patient population in a long term care hospital and not co-mingle the patient population of short-stay acute-care hospitals.

> ***Committee Response:*** The Committee agrees that this measure targets an important care transition and is an appropriate focus of performance measurement. Several members of the Committee share commenters' concerns that the measure should not include both readmissions to a short-stay acute-care hospital or a Long-Term Care Hospital (LTCH). There was concern that these are two different patient populations and are not conceptually aligned.
>
> **Note**: The Committee took a revote on this measure, after the Post-Comment call. The Committee was unable to reach consensus on the measure and thus, the measure moved forward to NQF Member voting designated as "Consensus not Reached".

NATIONAL QUALITY FORUM

Memo

APPENDIX B: NQF MEMBER VOTING RESULTS

None of the recommended measures were approved by the membership. Nine out of 18 measures were measures where consensus was not reached. The remaining nine measures were not approved. Representatives of 29 member organizations voted; no votes were received from the Public/Community Health Agency Council. Results for each measure are provided below. (Links are provided to the full measure summary evaluation tables.)

NQF Member Council	Voting Organizations	Eligible to Vote	Rate
Consumer	2	28	7%
Health Plan	4	15	27%
Health Professional	4	87	5%
Provider Organizations	12	134	9%
Public/Community Health Agency	0	33	0%
Purchaser	4	24	17%
QMRI	3	69	4%
Supplier/Industry	1	29	3%
All Councils	**30**	**419**	**9%**

Measure #0327 Risk-Adjusted Average Length of Inpatient Hospital Stay (Consensus Not Reached)

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	2	0	2	0%
Health Plan	1	3	0	4	25%
Health Professional	0	1	3	4	0%
Provider Organizations	0	8	4	12	0%
Public/Community Health Agency	0	0	0	0	
Purchaser	1	3	0	4	25%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**2**	**18**	**10**	**30**	**10%**
Percentage of councils approving (>60%)					0%
Average council percentage approval					8%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: We are concerned that this measure is not specific enough to be used for quality-related, decision-making purposes. In order to be useful,

this measure should have drill-down capabilities so that the average length of stay can be assessed by diagnosis-related group.

- American Hospital Association: Because the en bloc voting option does not offer the opportunity to comment, we will enter our comments here --- but they are relevant to the entire list of measures. We are chagrinned that several of the measures brought forward for endorsement in this set have extremely low levels of reliability. It is unclear to us how measures can be deemed to have passed criteria for scientific acceptability as national standards when, at these low levels of reliability, the measures cannot generate answers that anyone should accept as an accurate portrayal of provider performance. It is especially unfortunate when measures either planned for or used in federal programs carry the imprimatur of NQF endorsed while being so unreliable.
- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #0505 Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	1	3	4	0%
Provider Organizations	3	6	3	12	33%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	1	1	1	3	50%
Supplier/Industry	0	0	1	1	
All Councils	**13**	**9**	**8**	**30**	**59%**
Percentage of councils approving (>60%)					33%

Average council percentage approval	56%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #0695 Hospital 30-Day Risk-Standardized Readmission Rates following Percutaneous Coronary Intervention (PCI)

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	0	4	4	
Provider Organizations	3	6	3	12	33%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**12**	**8**	**10**	**30**	**60%**
Percentage of councils approving (>60%)					40%
Average council percentage approval					57%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus

regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."

- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2375 PointRight OnPoint-30 SNF Rehospitalizations

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	0	4	4	
Provider Organizations	5	4	3	12	56%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**14**	**6**	**10**	**30**	**70%**
Percentage of councils approving (>60%)					40%
Average council percentage approval					61%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for

sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2380 Rehospitalization During the First 30 Days of Home Health

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	0	4	4	
Provider Organizations	5	4	3	12	56%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**14**	**6**	**10**	**30**	**70%**
Percentage of councils approving (>60%)					40%
Average council percentage approval					61%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached

among the Steering Committee members as is the case for three measures in the measure set.

Measure # 2393 Pediatric All-Condition Readmission Measure

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	2	2	4	0%
Provider Organizations	4	5	3	12	44%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	1	1	1	3	50%
Supplier/Industry	0	0	1	1	
All Councils	**14**	**9**	**7**	**30**	**61%**
Percentage of councils approving (>60%)					33%
Average council percentage approval					57%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- Children's Hospital Association: The Childrens Hospital Association appreciates the opportunity to vote on the all-cause admissions and readmissions measures. Although we have voted to approve the two pediatric measures (2393 and 2414), we believe that additional experience with and evaluation of the measures is critical prior to using them for accountability purposes. (See letter to Dr. Cassel.)
  The pediatric readmissions measures are the first measures developed through the Pediatric Quality Measurement Program (PQMP) established as a result of CHIPRA. The PQMP is critically important in addressing the gap in the measures to assess and support improvement in the quality of care provided to all children, including children with special health care needs. Currently endorsed pediatric measures are heavily clustered in the prevention and well child domain and do not adequately address children with significant health care needs, including those needing hospitalization. We applaud the work of the PQMP and that of the measure developer, (CEPQM) at Boston Children's Hospital (BCH) in beginning to close these gaps.
  We urge potential users to proceed with great caution in using measures 2393 and 2414 for the purposes of accountability. As outlined in our previous comments, we believe that additional experience is needed to assess measuresvalidity and the potential for unintended consequences that might result from their use in accountability initiatives. BCH submitted a similar comment and recommended stratifying results to enable comparison among health systems according to characteristics such as hospital type and annual pediatric volume. Further, BCH noted pediatric readmissions measures should not be incorporated into pay for performance programs at this time.

There are significant limitations in measurement of readmissions currently under NQF review for both adults and children. In pediatrics, these weaknesses are compounded by the lack of a robust national database for pediatric care. The Medicaid Analytic eXtract and HCUP State Inpatient Databases, which were used to develop the measures, suffer from significant limitations. The data are only available for a select number of states, are typically one to two years delayed and there is variation in the quality of the data. Additional testing and validation is needed before applying the measures to other databases.

The relatively low rate of hospitalizations and readmissions in pediatrics pose additional challenges. Most adult readmissions measures are related to specific conditions (AMI, PCI, etc.) as compared to measure 2393, potentially exacerbating the issue of non-preventability (including readmissions totally unrelated to the initial admission) as well as other factors such as socioeconomic status. The Association supports the recommendations in the recent NQF report on risk adjustment for socioeconomic status. As the NQF undertakes a time limited trial period, we believe that the pediatric readmission measures are strong candidates for developing measures, including use of sociodemographic factors in risk adjustment, for the purposes of informing long term policy.

CEPQM notes an inherent limitation of readmission rates is that they do not indicate which factors most influence readmissions for a given population and are thus most important to addressand goes on to highlight the importance of measuring readmission rates as an essential first step. The Association believes that hospitals and delivery systems should strive to reduce readmissions and drive down barriers to the achievement of optimal health. Given this belief and the current dearth of pediatric measures, we vote to endorse the pediatric readmission measures but recommend use of these metrics be limited to exploratory purposes and for research initially. Should the measures be endorsed, we urge the NQF and other users develop a plan for gaining additional experience to validate the measures.

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached

among the Steering Committee members as is the case for three measures in the measure set.

Measure #2414 Pediatric Lower Respiratory Infection Readmission Measure

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	1	0	3	4	100%
Provider Organizations	4	5	3	12	44%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**14**	**7**	**9**	**30**	**67%**
Percentage of councils approving (>60%)					50%
Average council percentage approval					66%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- Children's Hospital Association: The Childrens Hospital Association appreciates the opportunity to vote on the all-cause admissions and readmissions measures. Although we have voted to approve the two pediatric measures (2393 and 2414), we believe that additional experience with and evaluation of the measures is critical prior to using them for accountability purposes. (See letter to Dr. Cassel.)
  The pediatric readmissions measures are the first measures developed through the Pediatric Quality Measurement Program (PQMP) established as a result of CHIPRA. The PQMP is critically important in addressing the gap in the measures to assess and support improvement in the quality of care provided to all children, including children with special health care needs. Currently endorsed pediatric measures are heavily clustered in the prevention and well child domain and do not adequately address children with significant health care needs, including those needing hospitalization. We applaud the work of the PQMP and that of the measure developer, (CEPQM) at Boston Children's Hospital (BCH) in beginning to close these gaps.
  We urge potential users to proceed with great caution in using measures 2393 and 2414 for the purposes of accountability. As outlined in our previous comments, we believe that additional experience is needed to assess measures validity and the potential for unintended consequences that might result from their use in accountability initiatives. BCH submitted a similar comment and recommended stratifying results to enable comparison among health systems according to characteristics such as hospital type and annual pediatric volume. Further, BCH noted pediatric readmissions measures should not be incorporated into pay for performance programs at this time.
  There are significant limitations in measurement of readmissions currently under NQF review for both adults and children. In pediatrics, these weaknesses are compounded by the lack of a robust national database for pediatric care. The Medicaid Analytic eXtract

and HCUP State Inpatient Databases, which were used to develop the measures, suffer from significant limitations. The data are only available for a select number of states, are typically one to two years delayed and there is variation in the quality of the data. Additional testing and validation is needed before applying the measures to other databases.

The relatively low rate of hospitalizations and readmissions in pediatrics pose additional challenges. Most adult readmissions measures are related to specific conditions (AMI, PCI, etc.) as compared to measure 2393, potentially exacerbating the issue of non-preventability (including readmissions totally unrelated to the initial admission) as well as other factors such as socioeconomic status. The Association supports the recommendations in the recent NQF report on risk adjustment for socioeconomic status. As the NQF undertakes a time limited trial period, we believe that the pediatric readmission measures are strong candidates for developing measures, including use of sociodemographic factors in risk adjustment, for the purposes of informing long term policy.

CEPQM notes an inherent limitation of readmission rates is that they do not indicate which factors most influence readmissions for a given population and are thus most important to address and goes on to highlight the importance of measuring readmission rates as an essential first step. The Association believes that hospitals and delivery systems should strive to reduce readmissions and drive down barriers to the achievement of optimal health. Given this belief and the current dearth of pediatric measures, we vote to endorse the pediatric readmission measures but recommend use of these metrics be limited to exploratory purposes and for research initially. Should the measures be endorsed, we urge the NQF and other users develop a plan for gaining additional experience to validate the measures.

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2496 Standardized Readmission Ratio (SRR) for dialysis facilities (Consensus Not Reached)

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	2	2	0	4	50%
Health Professional	0	2	2	4	0%
Provider Organizations	0	4	8	12	0%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	2	1	3	0%
Supplier/Industry	0	1	0	1	0%
All Councils	**7**	**12**	**11**	**30**	**37%**
Percentage of councils approving (>60%)					14%
Average council percentage approval					29%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: This measure is not yet ready for wide-spread use as the accountability for management of ESRD patients is not well defined. This measure would be more appropriate in a bundled payment scenario than in the current CMS payment model.
- Dialysis Patient Citizens: We cannot support endorsement of further readmission measures until the issue of socio-demographic status adjustment or peer grouping has been resolved by NQF and CMS. We also share the concerns raised about this specific measure-- that dialysis facilities lack sufficient control over hospital readmissions to be held accountable for this outcome.
- Akin Gump Strauss Hauer & Feld, LLP: Kidney Care Partners (KCP) has identified several significant concerns with Measure #2496 and offer the following comments.
  I. The SRR is inconsistent with CMSs Dialysis Facility Risk-Adjusted Standardized Mortality Ratio and Standardized Hospitalization Ratio for Admissions measures. These measures only include patients who have had ESRD for 90 days or more, and the SRR measure does not appear to be harmonized in this respect. Despite our May 2013 request for clarification on why this difference is present and for the data analysis on the implications of the difference, these details have not been provided for stakeholder review. We stress that harmonization is of particular importance with the SHR, given the SRR and SHR are likely to be used in conjunction to obtain a complete picture of a facility's hospitalization use.
  II. The SRR measure specifications submitted to NQF's Measure Applications Partnership in November 2013 had an exclusion for index hospitalizations that occur after a patient's 6th readmission in the calendar year, which has now been revised to those that occur after a patient's 12th readmission in the calendar year. KCP is concerned about the impact of the revision on low-volume facilities, and believe it is imperative for CMS to report on the underlying distribution that led to the change.
  III. CMS's Hospital-Wide All-Cause Unplanned 30-Day Readmission Ratio (NQF #1789) excludes patients who have incomplete claims history from the past year, but the proposed dialysis facility SRR does not.

IV. The measure's risk model fails to adequately account for hospital-specific patterns and fails to adjust at all for physician-level admitting patterns a particular concern because the decision to admit or readmit a patient is a physician decision. Geographic variability in this regard is well documented in other areas, and there is no reason to believe the situation is different for ESRD patients.
V. KCP strongly recommends that the measure be limited to those readmissions that are related or actionable to ESRD, rather than all-cause readmissions. Data from one KCP member revealed that approximately 45% of readmissions are not related or actionable to ESRD.
VI. KCP recommends that patients who are readmitted in the first 1-3 days after discharge be excluded from the measure. Data from two KCP members find that among patients who were rehospitalized within 30 days of the initial hospitalization in 2011, 11-17% were readmitted during this period often even before the first outpatient dialysis encounter. By an approximately 2:1 margin, rehospitalized dialysis patients had not been seen by the dialysis facility before readmission. Penalizing facilities for such situations is patently unreasonable. Further in this regard, during the first 8 days after discharge, up to 40% of patients were readmitted again the dialysis center had had a limited number of encounters to intervene/affect quality of care.
VII. Finally, CMS should provide data to demonstrate there is no bias of the SRR between rural and urban facilities; this is not simply adjusted for by the hospital as a random effect variable.
These points are further detailed in our previously submitted comments and in our accompanying letter to NQF. But in short, given the technical flaws and lack of validation elucidated above, KCP believes this measure should not be endorsed by NQF. We note that CMS has at its disposal the data to address a number of these issues. Further, KCP is concerned with the approach and assumptions for the predictive model, which posits to reveal an actual versus predicted rate when the basis for the ratio comes from claims data and not EMR data. We strongly recommend a more evidence-based approach to this measure and reiterate our opposition to its endorsement.

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached

among the Steering Committee members as is the case for three measures in the measure set.

Measure #2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	1	3	4	0%
Provider Organizations	3	6	3	12	33%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**12**	**9**	**9**	**30**	**57%**
Percentage of councils approving (>60%)					33%
Average council percentage approval					47%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2503 Hospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%

Health Plan	4	0	0	4	100%
Health Professional	0	1	3	4	0%
Provider Organizations	2	7	3	12	22%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**11**	**10**	**9**	**30**	**52%**
Percentage of councils approving (>60%)					33%
Average council percentage approval					45 %

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2504 30-day Rehospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	1	3	4	0%
Provider Organizations	2	7	3	12	22%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%

Supplier/Industry	0	0	1	1	
All Councils	**11**	**10**	**9**	**30**	**52%**
Percentage of councils approving (>60%)					33%
Average council percentage approval					45%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2505 Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	3	1	0	4	75%
Health Professional	0	1	3	4	0%
Provider Organizations	5	4	3	12	56%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**13**	**8**	**9**	**30**	**62%**
Percentage of councils approving (>60%)					33%
Average council percentage approval					47%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: This measure will require monitoring to ensure measure reliability.
- WellPoint: Should be monitored and further refined, delay endorsement until that time
- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2510 Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	2	1	1	4	67%
Health Professional	0	1	3	4	0%
Provider Organizations	5	4	3	12	56%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**12**	**8**	**10**	**30**	**60%**
Percentage of councils approving (>60%)					33%
Average council percentage approval					45%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: A majority of health plans believe that this measure should be harmonized with #2375 PointRight OnPoint-30 SNF Rehospitalizations; however, one plan feels that both measures are useful for different assessments. Both

measures use different data sources and #2510 excludes planned readmissions while #2375 does not.

- WellPoint: Think measure 2375 is superior to this measure,
- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2512 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (LTCHs) (Consensus Not Reached)

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	0	4	4	
Provider Organizations	0	7	5	12	0%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**9**	**9**	**12**	**30**	**50%**
Percentage of councils approving (>60%)					40%
Average council percentage approval					50%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-

Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."

- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2513 Hospital 30-Day All-Cause Risk-Standardized Readmission Rate (RSRR) following Vascular Procedures

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	0	4	4	
Provider Organizations	2	7	3	12	22%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**11**	**9**	**10**	**30**	**55%**
Percentage of councils approving (>60%)					40%
Average council percentage approval					54%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for

sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	0	4	4	
Provider Organizations	2	6	4	12	25%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**11**	**8**	**11**	**30**	**58%**
Percentage of councils approving (>60%)					40%
Average council percentage approval					55%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: We support this measure for internal quality improvement purposes only and not for public reporting.
- Baylor Scott & White Health: 1. In both the Numerator Statement and Denominator Statement of this measure, the NQF identifies the numerator and denominator to include Isolated Coronary Artery Bypass Graft surgery. The NQF and CMS must maintain alignment with the STS definition of Isolated CABG. The STS definition can include cases with forms of atrial fibrillation ablation, Extra Corporeal Membrane Oxygenation, and even some valve surgeries, if the valve surgery was unplanned.
  2. Because one of the exclusions to this measures is There is a CMS record, but no matching STS record &, centers offering cardiovascular surgery who do not participate in the Society of Thoracic Surgeons Adult Cardiac Surgery (STS-ACS) registry may gain an unfair advantage over the majority of centers that do participate in this registry. This may become more of an issue as the STS registry grows in size, requiring additional resources for data collection, and causing some centers to consider alternatives to participation in the STS-ACS registry. For example, the STS-ACS registry has increased in size each time it's been upgraded over the past decade, now requiring about 1250 data elements per case be assessed. While not all 1250 data elements are assessed on an Isolated Coronary Artery Bypass Surgery, participation in the registry by any one facility

requires all elements be assessed at one time or another.

3. The NQF and/or Medicare must provide timely feedback to sites regarding ongoing performance in this domain. Sites can track their internal readmission rates, but as is endemic with all CMS based readmission measures, sites do not have efficient and automated methods of knowing when patients are readmitted outside their hospital systems.

4. Varying Medicare Fee-For-Service populations may disproportionately and unfairly impact some sites. The STS-ACS registry has long been a universal measuring stickfor participating sites. Excluding Non Fee-For-Service populations will introduce levels of outcomes stratification that are not currently experienced by participants. We recommend the readmission rates that include all patients be reported.

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2515 Hospital 30-day all-cause unplanned risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	0	4	4	
Provider Organizations	2	6	4	12	25%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**11**	**8**	**11**	**30**	**58%**
Percentage of councils approving (>60%)					40%

Average council percentage approval	55%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- American College of Medical Quality: The American College of Medical Quality (ACMQ) believes that all these measures should not be endorsed until there is consensus regarding an appropriate, standardized risk-adjustment methodology for Socio-Economic Status. Claims-based measures also to not take into account Present on Admission" status in risk adjustments."
- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Measure #2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	1	1	0	2	50%
Health Plan	4	0	0	4	100%
Health Professional	0	0	4	4	
Provider Organizations	3	7	2	12	30%
Public/Community Health Agency	0	0	0	0	
Purchaser	4	0	0	4	100%
QMRI	1	0	2	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**13**	**8**	**9**	**30**	**62%**
Percentage of councils approving (>60%)					60%
Average council percentage approval					76%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- AAMC: The Association of American Medical Colleges (AAMC) has serious concerns with these readmissions measures. While the AAMC supports efforts to reduce all

unplanned and adverse readmissions, we believe that these measures are seriously flawed and are not appropriate for use in either a reporting or pay-for-performance program. Most importantly, these measures have not been risk adjusted to account for sociodemographic status factors, which adversely affects hospitals that treat sicker and more vulnerable patients. The NQF is currently in the process of establishing a sociodemographic status (SDS) trial period, which is set to start in late December, 2014. The AAMC strongly urges NQF to delay action on this measure set until the conclusion of the SDS trial period, to allow steering committee members to make a more informed decision on the measures methodology. The AAMC also strongly believes that NQF should not move measures forward for a vote, where consensus was not reached among the Steering Committee members as is the case for three measures in the measure set.

Remove Endorsement of Measures

Five measures previously endorsed by NQF have not been re-submitted, withdrawn from maintenance of endorsement, or not recommended for continued endorsement:

Measure	Description	Reason for removal of endorsement
0698: 30-Day Post-Hospital AMI Discharge Care Transition Composite Measure [CMS]	This measure scores a hospital on the incidence among its patients during the month following discharge from an inpatient stay having a primary diagnosis of heart failure for three types of events: readmissions, ED visits and evaluation and management (E&M) services. These events are relatively common, measurable using readily available administrative data, and associated with effective coordination of care after discharge. The input for this score is the result of measures for each of these three events that are being submitted concurrently under the Patient Outcomes Measures Phase I project's call for measures (ED and E&M) or is already approved by NQF (readmissions). Each of these individual measures is a risk-adjusted, standardized rate together with a percentile ranking. This composite measure is a weighted average of the deviations of the three risk-adjusted, standardized rates from the population mean for the measure across all patients in all hospitals. Again, the composite measure is accompanied by a percentile ranking to help with its interpretation.	CMS has not implemented Measure 0698 related to care transition since their endorsement by NQF. CMS contracted with Yale in October 2013 to conduct a comprehensive reevaluation of these measures; incorporating the findings from implementing the CMS readmissions for public reporting and payment programs. CMS will re-submit these measures for a comprehensive reevaluation once completed by Yale.

Measure	Description	Reason for removal of endorsement
0699: 30-Day Post-Hospital HF Discharge Care Transition Composite Measure [CMS]	This measure scores a hospital on the incidence among its patients during the month following discharge from an inpatient stay having a primary diagnosis of heart failure for three types of events: readmissions, ED visits and evaluation and management (E&M) services. These events are relatively common, measurable using readily available administrative data, and associated with effective coordination of care after discharge. The input for this score is the result of measures for each of these three events that are being submitted concurrently under the Patient Outcomes Measures Phase I project's call for measures (ED and E&M) or is already approved by NQF (readmissions). Each of these individual measures is a risk-adjusted, standardized rate together with a percentile ranking. This composite measure is a weighted average of the deviations of the three risk-adjusted, standardized rates from the population mean for the measure across all patients in all hospitals. Again, the composite measure is accompanied by a percentile ranking to help with its interpretation.	CMS has not implemented Measure 0699 related to care transition since their endorsement by NQF. CMS contracted with Yale in October 2013 to conduct a comprehensive reevaluation of these measures; incorporating the findings from implementing the CMS readmissions for public reporting and payment programs. CMS will re-submit these measures for a comprehensive reevaluation once completed by Yale.
0707: 30-day Post-Hospital PNA (Pneumonia) Discharge Care Transition Composite Measure [CMS]	This measure scores a hospital on the incidence among its patients during the month following discharge from an inpatient stay having a primary diagnosis of PNA	CMS has not implemented Measure 0707 related to care transition since their endorsement by NQF. CMS contracted with Yale in October 2013 to conduct a

Measure	Description	Reason for removal of endorsement
	for three types of events: readmissions, ED visits and evaluation and management (E&M) services. These events are relatively common, measurable using readily available administrative data, and associated with effective coordination of care after discharge. The input for this score is the result of measures for each of these three events that are being submitted concurrently under the Patient Outcomes Measures Phase II project´s call for measures. Each of these individual measures is a risk-adjusted, standardized rate together with a percentile ranking. This composite measure is a weighted average of the deviations of the three risk-adjusted, standardized rates from the population mean for the measure across all patients in all hospitals. Again, the composite measure is accompanied by a percentile ranking to help with its interpretation.	comprehensive reevaluation of these measures; incorporating the findings from implementing the CMS readmissions for public reporting and payment programs. CMS will re-submit these measures for a comprehensive reevaluation once completed by Yale.
0328: Casemix-Adjusted Inpatient Hospital Average Length of Stay [United Health Group]	This measure calculates a casemix-adjusted inpatient average length of stay (ALOS) for medical and surgical admissions for Commercial and Medicare populations. The measure can be reported at the hospital level or the service category level (medical vs. surgical).	United Health Group indicated that they no longer have the capacity to maintain these measures in accordance with NQF's Maintenance Policy. Their methods for risk-adjusting length of stay have evolved and now more closely mirror those put forth by Premier in measure 0327. Given the relative alignment of the endorsed Premier and internal UHG methodologies, the effort required to document our current

Measure	Description	Reason for removal of endorsement
		process for risk-adjusted LOS is likely counterproductive. For this reason, we will not be resubmitting measure 0328 during the upcoming measure maintenance cycle.
0331: Severity-Standardized Average Length of Stay -- Routine Care (risk adjusted) [Leapfrog Group]	Standardized average length of hospital stay (ALOS) for routine inpatient care (i.e., care provided outside of intensive care units).	The Leapfrog Group- Indicated that they no longer have the capacity to maintain these measures in accordance with NQF's Maintenance Policy. Due to the staff-intensive resources that shepherding a measure through the NQF process requires, The Leapfrog Group has made the decision to no longer serve as measure steward on measure #0331.

MEASURE EVALUATION SUMMARY TABLES

Measures Recommended

LEGEND: Y = Yes; N = No; H = High; M = Moderate; L = Low; I = Insufficient

0505 Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization

Submission | Specifications

Description: The measure estimates a hospital-level 30-day risk-standardized readmission rate (RSRR) for patients discharged from the hospital with a principal diagnosis of acute myocardial infarction (AMI). The outcome is defined as unplanned readmission for any cause within 30 days of the discharge date for the index admission. A specified set of planned readmissions do not count as readmissions. The target population is patients aged 18 years and older. CMS annually reports the measure for individuals who are 65 years and older and are either Medicare fee-for-service (FFS) beneficiaries hospitalized in non-federal hospitals or patients hospitalized in Department of Veterans Affairs (VA) facilities.

Numerator Statement: The outcome for this measure is 30-day readmission. We define readmission as an inpatient admission for any cause, with the exception of certain planned readmissions, within 30 days from the date of discharge from the index AMI admission. If a patient has more than one unplanned admission within 30 days of discharge from the index admission, only the first one is counted as a readmission. The measure looks for a dichotomous yes or no outcome of whether each admitted patient has an unplanned readmission within 30 days. However, if the first readmission after discharge is considered planned, then no readmission is counted, regardless of whether a subsequent unplanned readmission takes place. This is because it is not clear whether such readmissions are appropriately attributed to the original index admission or the intervening planned readmission.

Denominator Statement: The target population for this measure is patients aged 18 years and older hospitalized for AMI. The measure is currently publicly reported by CMS for those 65 years and older who are either Medicare FFS beneficiaries admitted to non-federal hospitals or patients admitted to VA hospitals.

The measure includes admissions for patients discharged from the hospital with a principal diagnosis of AMI and with a complete claims history for the 12 months prior to admission.

As noted above, this measure can also be used for an all-payer population aged 18 years and older. We have explicitly tested the measure in both patients aged 18+ years and those aged 65+ years.

Exclusions: For all cohorts, the measure excludes admissions for patients:

-discharged against medical advice (AMA) (because providers did not have the opportunity to deliver full care and prepare the patient for discharge);

-admitted and then discharged on the same day (because it is unlikely these are clinically significant AMIs);

-admitted with AMI within 30 days of discharge from a qualifying index admission (Admissions within 30 days of discharge of an index admission will be considered readmissions. No admission is counted as a readmission and an index admission. The next eligible admission after the 30-day time period following an index admission will be considered another index admission.)

For Medicare FFS patients, the measure additionally excludes admissions for patients:

0505 Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization

-without at least 30 days post-discharge enrollment in FFS Medicare (because the 30-day readmission outcome cannot be assessed in this group).

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome
Data Source: Administrative claims
Measure Steward: Centers for Medicare & Medicaid

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-19; N-0** 1b. Performance Gap: **H-9**; **M-10**; **L-0**; **I-0;** 1c. Impact: **H-14**; **M-5**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee agreed that measuring AMI readmissions is a high priority. Members noted that AMI is among the most common principal hospital discharge diagnoses among Medicare beneficiaries, and that AMI was the sixth most expensive condition billed to Medicare in 2008.
- The Committee reviewed the extensive body of evidence provided by the developer in the measure evidence forms and agreed there is a demonstrable relationship between hospital quality initiatives and reduction of readmissions.
- The Committee agreed that there was still an opportunity for improvement in this measure. The developer noted that since implementation of this measure, the developers have seen national declines in AMI readmissions over a 3-year period. The developers attribute the decline to improvements around quality of care for AMI patients.

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-16**; **L-0**; **I-0** 2b. Validity: **H-4**; **M-15**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee noted that the interclass correlation coefficient (ICC) provided by the developer (0.38, interpreted as “fair agreement”) was comparable to other outcome measures of quality. The developer noted that the split sample, which was used to conduct reliability testing, contained 2-years of data, rather than 3-years (as the measure is specified). When extrapolating the data to 3-years the ICC increased to 0.48 that can be interpreted as “moderate agreement”.
- The Committee agreed that the testing results provided by the developer demonstrated the measure had good reliability, showing a correlation of 0.98 between the medical record model and the administrative claims model.
- The Committee agreed that the model indicated good discrimination, and further discussed performance of the model when used in an all-payer data set, noting that the C statistic was slightly higher at 0.67, when compared to the Medicare Population. The developer explained that the models typically perform better in all-payer data sets. The developer hypothesized that

0505 Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization
since younger populations generally have less comorbidity, the covariates may be more powerful predictors of severity when compared to the Medicare population.
3. Feasibility: H-18; M-1; L-0; I-0 *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • All data elements are in defined fields in electronic claims and these data are routinely collected as part of the billing process.
4. Use and Usability: H-4; M-14; L-0; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • This measure is currently in use for a number of federal programs including the Hospital Inpatient Quality Reporting Program and the Hospital Readmissions Reduction Program. • The Committee agreed that while there has been improvement nationally in AMI Readmissions, there is still potential for unintended consequences when the measure is tied to a payment program. The Committee suggested that public reporting and payment programs should include confidence interval estimates to ensure statistically significant differences in performance are used to identify quality differences.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-17**; **N-2**
6. Member and Public Comment • Commenters were generally supportive of this measure and the updates to the specifications, including the removal of certain planned readmissions and adjustment of the target population to capture patients 18 years and older. • However, some commenters suggested that while changing the reporting period from one to three years does improve the stability of the measure, the increased lag time in obtaining performance results may reduce hospitals' ability to detect the impact of newly-implemented processes of care for readmissions in a timely manner. • Other commenters noted that this measure does not capture patients who are admitted for another clinical condition but have an in-hospital AMI, expressing concern that this could result in the exclusion of patients who have a post-operative AMI. • Two comments noted that CMS recently signaled its intention to change the algorithm for identifying planned readmissions. Commenters argued that this information should have been included as part of the measure submission reviewed by the Standing Committee. • Finally, two commenters suggested that the all-cause approach to measuring readmissions limits this measure's ability to accurately identify differences in performance that are related to the quality of cardiac care.

0505 Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0695 Hospital 30-Day Risk-Standardized Readmission Rates following Percutaneous Coronary Intervention (PCI)
Submission | Specifications
Description: This measure estimates a hospital-level risk-standardized readmission rate (RSRR) following PCI for Medicare Fee-for-Service (FFS) patients who are 65 years of age or older. The outcome is defined as unplanned readmission for any cause within 30 days following hospital stays. The measure includes both patients who are admitted to the hospital (inpatients) for their PCI and patients who undergo PCI without being admitted (outpatient or observation stay). A specified set of planned readmissions do not count as readmissions. The measure uses clinical data available in the National Cardiovascular Disease Registry (NCDR) CathPCI Registry for risk adjustment and Medicare claims to identify readmissions. Additionally, the measure uses direct patient identifiers including Social Security Number (SSN) and date of birth to link the datasets. A hospital stay is when a patient is admitted to the hospital (inpatient) for PCI or receives a procedure at a hospital, but is not admitted as an inpatient (outpatient). The primary update to this measure since it was last reviewed by the National Quality Forum (NQF) is a more comprehensive specification of planned readmission. Additionally, the updated measure includes a re-specification of variables to reflect changes in the data collection form that occurred when the CathPCI Registry was updated from Version 3.04 (Version 3) to Version 4.3.1 (Version 4). Finally, the measure has been updated to use direct identifiers including SSN and date of birth to link the CathPCI Registry data with corresponding administrative claims data. These updates are described within this application and in the accompanying report re-specifying Hospital 30-Day Readmission Following Percutaneous Coronary Intervention Measure (see Appendix attachment). **Numerator Statement**: The outcome for this measure is 30-day all-cause readmission. We define readmission as an acute care inpatient hospital admission for any cause, with the exception of certain planned readmissions, within 30 days from the discharge date of the index PCI hospitalization or PCI outpatient claim end date (hereafter referred to as discharge). If a patient has more than one unplanned admission within 30 days of discharge from the index admission, only the first one is counted as a readmission. The measure looks for a dichotomous yes or no outcome of whether each admitted patient has an unplanned readmission within 30 days. However, if the first readmission after discharge is considered planned, then no readmission is counted, regardless of whether a subsequent unplanned readmission takes place. We use this approach because it would potentially be unfair to attribute an unplanned readmission that follows a planned readmission back to the care received during the initial index admission. For more details on how planned readmissions were identified and removed from the outcome, please refer to the Specifications Report in the attached Appendix. **Denominator Statement**: The target population for this includes hospital stays for patients who are 65 years of age or older who receive a PCI and who have matching records in the CathPCI Registry and

Medicare claims.

Exclusions: The following exclusions were applied to data during the merging of NCDR CathPCI and Medicare datasets:

1. Patients younger than 65 years of age.

Rationale: Patients younger than 65 in the Medicare dataset represent a distinct population that qualifies for Medicare due to disability. The characteristics and outcomes of these patients may be less representative of the larger population of PCI patients. Additionally, patients younger than 65 in the NCDR CathPCI dataset will not have corresponding data in the Medicare claims dataset to obtain the readmission outcome.

2. Patient stays with duplicate fields (NCDR CathPCI and Medicare datasets).

Rationale: Two or more patient stays that have identical information for SSN, admission date, discharge date, and hospital MPN are excluded to avoid making matching errors upon merging of the two datasets.

3. Unmatched patient stays.

Rationale: The measure requires information from both the CathPCI Registry and corresponding Medicare claims data. Accordingly, the measure cannot be applied to patient stays that are not matched in both datasets.

Exclusions applied to the linked dataset:

1. Patients not enrolled in Medicare FFS at the start of the episode of care.

Rationale: Readmission data are currently available only for Medicare FFS patients.

2. Not the first claim in the same claim bundle.

Rationale: Multiple claims from an individual hospital can be bundled together. To ensure that the selected PCI is the index PCI, we exclude those PCI procedures that were not the first claim in a specific bundle. Inclusion of additional claims could lead to double counting of an index PCI procedure.

3. Instances when PCI is performed more than 10 days following admission.

Rationale: Patients who undergo PCI late into their hospitalization represent an unusual clinical situation in which it is less likely that the care delivered at the time of or following the PCI would be reasonably assumed to be associated with subsequent risk of readmission.

4. Transfers out.

Rationale: Patient stays in which the patient received a PCI and was then transferred to another hospital are excluded because the hospital that performed the PCI procedure does not provide discharge care and cannot fairly be held responsible for their outcomes following discharge.

5. In-hospital deaths (the patient dies in the hospital).

Rationale: Subsequent admissions (readmissions) are not possible.

6. Discharges Against Medical Advice (AMA).

Rationale: Physicians and hospitals do not have the opportunity to deliver the highest quality care.

7. PCI in which 30-day follow-up is not available.

Rationale: Patients who are not enrolled for 30 days in fee-for-service Medicare following their hospital stay are excluded because there is not adequate follow-up data to assess readmissions.

8. Admissions with a PCI occurring within 30-days of a prior PCI already included in the cohort.

Rationale: We do not want to count the same admission as both an index admission and an outcome.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims, Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-20**; **N-0** 1b. Performance Gap: **H-17**; **M-4**; **L-0**; **I-0;** 1c. Impact: **H-18**; **M-3**; **L-0**; **I-0**

Rationale:

- Committee members agreed that the rationale provided by the developer supported a relationship between the outcome and at least one process. Noting that numerous studies have demonstrated that differences in both PCI technique and subsequent hospital care affect patient outcomes following PCI.
- The Committee noted that with an interquartile performance range of 10.9 percent to 12.6 percent, there was a gap in performance.
- The Committee agreed this is a high impact measure that affects a large number of patients since it is one of the most common cardiac procedures in the country. In 2005, nearly 1.2 million PCI's were performed in the US with approximately one in five resulting in a readmission.

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-5**; **M-16**; **L-0**; **I-0** 2b. Validity: **H-2**; **M-18**; **L-0**; **I-0**

Rationale:

- The Committee discussed the fact that the measure is based on clinical data, which is audited using annual onsite chart reviews and data abstraction.
- In terms of reliability, the measure developers used as a test-retest approach, similar to that of Measure 0505. The interclass correlation coefficient (ICC) in this measure is 0.37, which is interpreted as "fair agreement".
- The Committee discussed the validity of the measure and specifically the hierarchical logistical regression model which had a C-statistic of 0.66. Members agreed that this value was generally good for measures examining readmissions. The model discrimination was similar in both development and validation sets.
- The Committee noted missing data for ejection fraction in approximately 29 percent of observations as a threat to validity. The committee considered this to be a high number of missing data, and noted that the missing data was imputed into the median of corresponding groups, which some agreed was not ideal.
    - The developer explained that patients without information on ejection fraction before a PCI are typically those that are treated in an emergency case. Given this, the missing information is not random and generally represents highly comorbid patients. To handle this concern, the developer used a dummy variable for missing ejection fraction

to account the severity of these patients. The Committee was generally comfortable with this response by the developer.
3. Feasibility: H-6; M-13; L-3; 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 measure is based on a hybrid of clinical and administrative electronic claims and it is feasible. The administrative data is to identify which patients are readmitted and the clinical data is based on the CathPCI registry.
4. Use and Usability: H-3; M-14; L-3; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • Committee members noted that the measure is reported hospitals participating in ACC Voluntary Public Reporting Program as well as Hospital Compare.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-20**; **N-0**
6. Member and Public Comment • Comments were generally supportive of this measure, particularly regarding the inclusion of a planned readmissions algorithm. • Some commenters noted that Measure 0505 applies to patients aged 18 and older, whereas this measure applies only to patients aged 65 and older, suggesting that the age ranges of these measures should be harmonized.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2375 PointRight OnPoint-30 SNF Rehospitalizations
Submission **|** Specifications
Description: PointRight OnPoint-30 is an all-cause, risk adjusted rehospitalization measure. It provides the rate at which all patients (regardless of payer status or diagnosis) who enter skilled nursing facilities (SNFs) from acute hospitals and are subsequently rehospitalized during their SNF stay, within 30 days from their admission to the SNF. **Numerator Statement**: The numerator is the number of patients sent back to any acute care hospital (excluding emergency room only visits) during their SNF stay within 30 days from a SNF admission, as indicated on the MDS 3.0 discharge assessment during the 12 month measurement period. **Denominator Statement**: The denominator is the number of all admissions, regardless of payer status and diagnosis, with an MDS 3.0 admission assessment to a SNF from an acute hospital during the target rolling 12 month period.

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Exclusions: The denominator has 2 different exclusions: individual level and provider level. At the individual level the exclusion is related to incomplete assessments. At the provider level the exclusion is related to the amount of data necessary to calculate the measure that is missing. Payer status and clinical conditions are not used for any exclusion.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

Type of Measure: Outcome

Data Source: Electronic Clinical Data

Measure Steward: American Health Care Association

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-23; N-1**; 1b. Performance Gap: **H-15**; **M-9**; **L-0**; **I-0;** 1c. Impact: **H-19**; **M-4**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee noted that there is a significant performance gap across providers, noting data presented by the developer that shows performance variation from a low of 13 percent to a high of 22 percent readmissions across states.
- The Committee also noted that there are processes that skilled nursing facilities can undertake that would improve performance on this measure.

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-4**; **M-13**; **L-5**; **I-2** 2b. Validity: **H-1**; **M-17**; **L-6**; **I-0**

<u>Rationale</u>:

- Members of the Committee expressed concern that the measure does not exclude planned readmissions from the measure. Given the lack of planned readmission exclusions, some argued that the measure may not be actionable at the facility level or allow for appropriate accountability.
    - The developer responded to these concerns by noting that the measure is developed using data from the minimum data set (MDS). At the time of the development of this measure, this dataset did not collect information on whether a readmission was planned or unplanned. Subsequently, CMS has added this variable to the MDS dataset; however, it is currently missing 82 percent of the time.
    - The developer also noted this measure is stronger with the use of the MDS data versus claims data since a measure specified using claims would only be applicable to the Medicare fee-for-service population. The developer argued that this dataset allows for a more comprehensive analysis of readmissions from SNFs.
    - The developer also noted that the strength in not using claims is that there is quicker

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turn-around in providing results back to SNFs. • Committee members agreed that having this measure specified to include more than Medicare fee-for-service was beneficial and discussed whether the measure could be stratified based on payer class. The developer clarified that MDS does not have reliable data for payer class.
3. Feasibility: H-14; M-8; L-2; I-0 *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • The Committee agreed that the data elements are routinely generated and used during care delivery and noted, that all data elements are defined fields in an electronic clinical data ((e.g., clinical registry, nursing home MDS, home health OASIS)
4. Use and Usability: H-5; M-14; L-5; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • Overall, the Committee agreed that this measure is usable but did note that the measure may be more susceptible to gaming through increased coding intensity and improvement. • This measure is currently in use by the American Health Care Association (AHCA) as part of their Quality Improvement Recognition Program, LTC Trend Tracker, and AHCA Quality Initiative.
5. Related and Competing Measures • This measure directly competes with Measure 2510: Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)—the risk-standardized rate of all-cause, unplanned, hospital readmissions for patients (Medicare fee-for-service [FFS] beneficiaries) who have been admitted to a Skilled Nursing Facility (SNF) within 30 days of discharge from their prior proximal hospitalization. The prior proximal hospitalization is defined as an admission to an IPPS, CAH, or a psychiatric hospital. The measure is based on data for 12 months of SNF admissions. • The principal difference between Measure 2375: PointRight OnPoint-30 SNF Rehospitalizations [AHCA], and Measure 2510: Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM) is the data source. Measure 2510 uses administrative claims data, and thus is limited to Medicare fee-for-service patients. Measure 2375 uses the minimum data set (MDS), and includes both planned/unplanned readmissions since the data source does not currently include reliable coding of this information. • In anticipation of the NQF endorsement process, CMS and AHCA collaborated to discuss the suitability of their respective SNF-based readmission measures for harmonization and agreed that the measure differences justify having 2 measures. • The Committee agreed with this sentiment and voted to recommend both Measure 2375: PointRight OnPoint-30 SNF Rehospitalizations [AHCA], and Measure 2510: Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM) for endorsement.
Standing Committee Recommendation for Endorsement: **Y-22**; **N-2**

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6. Member and Public Comment • Commenters noted that Measure 2375 lacked adjustment for planned readmissions, an issue discussed by the Committee. • One comment urged the Committee to reconsider the decision to endorse two similar measures, 2375 and 2510. They suggested harmonizing these two measures into one hybrid measure combining data from both the Minimum Data Set (MDS) and claims. These commenters suggested that MDS data in Measure 2375 may enable a more robust risk adjustment methodology, but argued that the type of "planned readmission" algorithm used by CMS could strengthen the measure. • One commenter also encouraged CMS to exclude acute psychiatric inpatient stays from the index admission.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2380 Rehospitalization During the First 30 Days of Home Health
Submission | Specifications
Description: Percentage of Home Health stays in which patients who had an acute inpatient hospitalization in the 5 days before the start of their Home Health stay were admitted to an acute care hospital during the 30 days following the start of the Home Health stay. **Numerator Statement**: Number of Home Health stays for patients who have a Medicare claim for an admission to an acute care hospital in the 30 days following the start of the Home Health stay. **Denominator Statement**: Number of Home Health stays that begin during the relevant observation period for patients who had an acute inpatient hospitalization in the five days prior to the start of the Home Health stay. A Home Health stay is a sequence of Home Health payment episodes separated from other Home Health payment episodes by at least 60 days. **Exclusions**: The measure denominator excludes several types of Home Health stays: First, the measure denominator for the Rehospitalization During the First 30 Days of Home Health measure excludes the following Home Health stays that are also excluded from the all-patient claims-based NQF 0171 Acute Care Hospitalization measure: (i) Stays for patients who are not continuously enrolled in fee-for-service Medicare during the measure numerator window; (ii) Stays that begin with a Low-Utilization Payment Adjustment (LUPA). Stays with four or fewer visits to the beneficiary qualify for LUPAs; (iii) Stays in which the patient is transferred to another Home Health agency within a Home Health payment episode (60 days); and (iv) Stays in which the patient is not continuously enrolled in Medicare fee-for-service during the previous six months. Second, to be consistent with the Hospital-Wide All-Cause Unplanned Readmission measure (as of January 2013), the measure denominator excludes stays in which the hospitalization occurring within 5 days of the start of Home Health care is not a qualifying inpatient stay. Hospitalizations that do not qualify as index hospitalizations include admissions for the medical treatment of cancer, primary psychiatric

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disease, or rehabilitation care, and admissions ending in patient discharge against medical advice.

Third, the measure denominator excludes stays in which the patient receives treatment in another setting in the 5 days between hospital discharge and the start of Home Health.

Finally, stays with missing payment-episode authorization strings (needed for risk-adjustment) are excluded.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Home Health

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Centers for Medicare and Medicaid Services

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-18; N-4**; 1b. Performance Gap: **H-7**; **M-13**; **L-0**; **I-2**; 1c. Impact: **H-8**; **M-14**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee noted that there is opportunity for improvement, with 13.3 percent of Home Health patients experiencing an unplanned readmission in the first 30 days of care.
- There was agreement among Committee members that certain strategies can be implemented in the home health setting to reduce readmissions, including care coordination, physician follow-up, hospital discharge planning, and a variety of Home Health-specific evidence-based strategies.

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-17**; **L-3**; **I-0** 2b. Validity: **H-0**; **M-18**; **L-4**; **I-0**

<u>Rationale</u>:

- During the Committee workgroup call, the Committee requested additional information to justify the exclusion of acute care hospitalizations occurring within 5 days of the start of a Home Health stay. The developer provided additional analyses in which they outlined the rationale for this exclusion:
    - The five-day timeframe enables a substantial proportion of Home Health patients to be captured in the measure denominator—the developer noted that the measure as specified (with a 5-day delay) captures 90 percent of patients who begin Home Health within 30 days of hospital discharge. Unlike post-acute care in many other settings, the patient returns to their home after hospital discharge, resulting in some gap between hospital discharge and the initial visit from a HHA.
    - The Medicare Conditions of Participation for HHAs require Home Health care to begin within 48 hours of hospital discharge or on the physician-ordered start of care date (which is usually within 1-3 calendar days of hospital discharge).

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- The developer provided split-half reliability testing, which assesses the consistency with which measured entities are assigned performance scores. The testing results showed that 80 percent of the agencies were grouped into the same performance category, demonstrating a "high level of internal consistency." The Committee voiced concern that there was no additional reliability statistics provided, specifically an intraclass correlation coefficient (ICC) to determine reliability.
    - This issue was also discussed during the workgroup call, and the developer provided additional explanation to the Committee at the in-person meeting, noting that an ICC would not be appropriate for assessing measure reliability since CMS intends to publicly report this measure using a categorical reporting method. This categorical reporting method does not attempt to distinguish between high and low performing agencies by comparing agencies' risk-adjusted rates; rather, each Home Health agency is classified into a performance category based on each Home Health agency's expected and observed rates.
- The mean differences in performance were consistently positive, ranging from 3.6 to 5.6 percent; however, the developer did not provide any additional description of how the correlations demonstrate validity of the performance score.

3. Feasibility: H-10; M-10; L-1; I-1

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

Rationale:

- The required data elements are routinely generated and used during care delivery and all data elements are in defined fields in electronic claims.

4. Use and Usability: H-2; M-15; L-4; I-0

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- The Committee noted that CMS plans to publicly report this measure on Home Health Compare starting in 2015. This plan was finalized in the CMS Home Health Prospective Payment System final rule for CY2014.
- This measure may be used in combination with Measure 2505: Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health. However, the Committee noted that there was limited explanation as to how they would be used in combination.

5. Related and Competing Measures

- This measure competes directly with Measure 0171: Acute Care Hospitalization—Percentage of Home Health stays in which patients were admitted to an acute care hospital during the 60 days following the start of the Home Health stay.
- The measure specifications for Measure 0171 and Measure 2380 were harmonized along several measure dimensions, including Data source, Population, Denominator Exclusions, Numerator,

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and Risk Adjustment methodology. • The developers of this measure contended that there are differences that justify having two separate measures. Whereas Measure 0171 evaluates patient admission to an acute care hospital during the 60 days following the start of a Home Health stay (regardless of whether or not this stay was preceded by an inpatient hospitalization), Measure 2380 evaluates readmission to the hospital within 30 days after starting Home Health care for patients who were recently discharged from an inpatient setting. • Home Health agencies can track their performance on both utilization measures to gain an accurate picture of how much acute care is being used by their patients. Additionally, Measure 2380 is an outcome measure that assesses the efficacy of care coordination as patients transition from inpatient acute care to outpatient Home Health services. In contrast, Measure 0171 assesses the efficacy of clinical care provided to all patients, as indicated by rates of hospitalization after entry into Home Health services. • These are distinct domains of care under the CMS Quality Strategy and reflect related but distinct care quality concepts. This is not the only setting in which CMS has developed paired readmission and hospitalization measures. Such measures exist for end-stage renal disease (ESRD), and such pairings are being considered in other care settings as well. • According to NQF guidance, since Measure 0171 was not evaluated in this project the Committee will not make a recommendation with regards to these 2 competing measures. A recommendation may be made at a later date.
Standing Committee Recommendation for Endorsement: **Y-16**; **N-6**
6. Member and Public Comment • Commenters expressed concerns with the Committee's recommendation of Measure 2380, citing the measure's similarity to the already-endorsed Measure 0171. Commenters noted that these measures have different time windows, urging the Committee to consider whether one time window is more clinically meaningful than the other and requesting that CMS synthesize the two measures into one.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2393 Pediatric All-Condition Readmission Measure
Submission | Specifications

2393 Pediatric All-Condition Readmission Measure

Description: This measure calculates case-mix-adjusted readmission rates, defined as the percentage of admissions followed by 1 or more readmissions within 30 days, for patients less than 18 years old. The measure covers patients discharged from general acute care hospitals, including children's hospitals.

Numerator Statement: The numerator consists of hospitalizations at general acute care hospitals for patients less than 18 years old that are followed by 1 or more readmissions to general acute care hospitals within 30 days. Readmissions are excluded from the numerator if the readmission was for a planned procedure or for chemotherapy.

The measure outcome is a readmission rate, defined as the percentage of index admissions with 1 or more readmissions within 30 days. The readmission rate, unadjusted for case-mix, is calculated as follows:

number of index admissions with 1 or more readmissions within 30 days/

total number of index admissions

Denominator Statement: Hospitalizations at general acute care hospitals for patients less than 18 years old.

Exclusions: EXCLUSIONS FROM THE NUMERATOR (READMISSIONS) AND DENOMINATOR (INDEX HOSPITALIZATIONS)

We exclude certain hospitalizations from the measure entirely (i.e., from the numerator and denominator) based on clinical criteria or for issues of data completeness or quality that could prevent assessment of eligibility for the measure cohort or compromise the accuracy of readmission rates. Hospitalizations are excluded from the measure if they meet any of the following criteria:

1. The hospitalization was at a specialty or non-acute care hospital.

Rationale: The focus of the measure is admissions to hospitals that provide general pediatric acute care. Records for admissions to specialty and non-acute care hospitals are therefore omitted from the dataset. Because hospital type cannot be determined for records with missing data in the hospital type variable, these records are also removed from the dataset.

2. Records for the hospitalization contain incomplete data for variables needed to assess eligibility for the measure or calculate readmission rates, including hospital type, patient identifier, admission date, discharge date, disposition status, date of birth, primary ICD-9 or principal ICD-10 diagnosis codes, or gender.

Rationale: Complete and valid information for the variables listed above is needed to define the measure cohort and calculate case-mix-adjusted readmission rates. Identifying readmissions within 30 days requires information on dates of admission and end-of-service dates and the ability to link unique patient identifiers across inpatient claims records. Hospital identifiers are needed to determine the hospital at which index admissions occurred. The disposition status is needed to determine whether a patient was discharged or experienced some other outcome (e.g., was transferred to another acute care hospital, left against medical advice, died). Establishing a patient's eligibility for membership in the pediatric cohort and performing case-mix adjustment requires an accurate date of birth and end-of-service date. Because gender is 1 of the variables used for case-mix adjustment, episodes of care with missing or inconsistent gender cannot be evaluated in the measure.

3. Records for the hospitalization contain data of questionable quality for calculating readmission rates, including

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a. Inconsistent date of birth across records for a patient.

b. Discharge date prior to admission date.

c. Admission or discharge date prior to date of birth.

d. Admission date after a disposition status of death during a prior hospitalization.

Rationale: Complete and valid information for the variables listed above is needed to define the measure cohort and calculate case-mix-adjusted readmission rates. Identifying readmissions within 30 days requires information on dates of admission and end-of-service. A valid disposition status is needed to determine whether a patient was discharged or experienced some other outcome (e.g., was transferred to another acute care hospital, left against medical advice, died). Establishing a patient's eligibility for membership in the pediatric cohort and performing case-mix adjustment requires an accurate date of birth and end-of-service date.

4. Codes other than ICD-9 or ICD-10 codes are used for the primary procedure.

Rationale: ICD-9 or ICD-10 procedure codes are necessary for applying clinical exclusions.

5. The patient was older than 18 years, 29 days at the time of admission.

Rationale: This age exclusion limits the population to pediatric patients and prevents inclusion of records that overlap with adult readmission measures. Age eligibility for inclusion in the measure is based on age at the time of discharge from the index admission. Because the focus of the measure is pediatric patients, a patient's hospitalization is ineligible for inclusion in the measure as an index admission if the patient was 18 years old or greater at the time of discharge. Because the subsequent observation period for readmissions is 30 days, a patient's hospitalization is ineligible for inclusion in the measure as a readmission if the patient was older than 18 years, 29 days at the start of the readmission.

6. The hospitalization was for obstetric care, including labor and delivery.

Rationale: Hospitalizations for obstetric conditions are excluded because care related to pregnancy does not generally fall within the purview of pediatric providers.

7. The primary ICD-9 or principal ICD-10 diagnosis code was for a mental health condition.

Rationale: Hospitalizations for mental health conditions are excluded because we found that hospitals with high readmission rates for mental health hospitalizations tend to have low readmission rates for hospitalizations for other conditions, and vice versa. We describe this analysis in detail in Section 2b.3 of the Measure Testing Submission Form.

8. The hospitalization was for birth of a healthy newborn.

Rationale: Hospitalizations for birth of healthy newborns are excluded because these hospitalizations, unlike all others, are not for evaluation and management of disease.

EXCLUSIONS FROM THE DENOMINATOR ONLY (INDEX HOSPITALIZATIONS ONLY)

We also apply further exclusions to the denominator only (i.e., these hospitalizations are excluded from index hospitalizations but could still meet criteria for readmissions). Hospitalizations are excluded from the denominator only if they meet any of the following criteria:

9. The patient was 18 years old or older at the time of discharge.

Rationale: Age eligibility for inclusion in the measure is based on age at the time of discharge from the index admission. Because the measure covers pediatric patients, a patient's hospitalization is ineligible for

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inclusion in the measure as an index admission if the patient was 18 years old or greater at the time of discharge.

10. The discharge disposition was death.

Rationale: A patient must be discharged alive from an index admission in order to be readmitted. Therefore, any record with a discharge disposition of death cannot serve as an index admission.

11. The discharge disposition was leaving the hospital against medical advice.

Rationale: A discharge disposition of leaving against medical advice indicates that a patient left care before the hospital determined that the patient was ready to leave.

12. The hospital has less than 80% of records with complete patient identifier, admission date, and discharge date or less than 80% of records with complete primary ICD-9 or principal ICD-10 diagnosis codes. (Records for these hospitals are still assessed as possible readmissions, but readmission rates are not calculated for these hospitals due to their lack of complete data.)

Rationale: Readmission rates are not calculated for hospitals missing large amounts of data for the above variables because these hospitals have limited data to accurately apply measure cohort exclusions and calculate case-mix-adjusted readmission rates. Assessing eligibility for the measure cohort and performing case-mix adjustment requires information on admission dates, end-of-service dates, and diagnosis codes. Identifying readmissions requires information on admission dates and end-of-service dates and the ability to link unique patient identifiers across inpatient claims records.

13. The hospital is in a state not being analyzed.

Rationale: A claims database used for readmission analysis may contain records for hospitals located in states that are not included in the database (because covered patients may sometimes be admitted to out-of-state hospitals). Records for these out-of-state hospital admissions are not excluded from the measure dataset because these records may meet criteria for being counted as readmissions as part of an in-state hospital's readmission rate. However, readmission rates are not calculated for out-of-state hospitals due to the lack of complete data for these hospitals.

14. Thirty days of follow-up data are not available for assessing readmissions.

Rationale: Identifying readmissions within 30 days requires a full 30 days of follow-up data.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Center of Excellence for Pediatric Quality Measurement

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-21; N-1**; 1b. Performance Gap: **H-1**; **M-20**; **L-0**; **I-0;** 1c. Impact: **H-7**; **M-13**; **L-2**; **I-0**

<u>Rationale</u>:

- The Committee noted that there is not a large evidence base to support a rationale between

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healthcare processes and structures, such as care coordination, discharge planning, and medication reconciliation, and decreased pediatric readmission rates. However, the Committee agreed there are gaps in quality metrics for pediatric population, and subsequently agreed this outcome was important to measure and report.

- The Committee emphasized the potential for this measure to improve disparities in care, particularly for Black and Hispanic patients.
- The Committee agreed this measure was high priority given that that readmission occurs in 2 to 6 percent of hospitalizations for children, costing $2.8 billion for children with 4 or more hospitalizations, over a one year period.

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-17**; **L-2**; **I-0** 2b. Validity: **H-0**; **M-19**; **L-3**; **I-0**

<u>Rationale</u>:

- The Committee expressed concern that the measure was tested using Medicaid data but is specified for use in an all-payer dataset, noting that testing was not provided to demonstrate how the measure performs outside of the Medicaid population.
- The Committee noted that the reliability of the measure was highly dependent on case volume. The developer provided additional analyses where they used a minimum threshold of 100 index hospitalizations per year. When the threshold is applied the developers concluded that reliability for this measure improves for hospitals with higher case volumes.
    - The developers acknowledged that this would be a consideration on how the measure is implemented. The developers hypothesize that hospitals reporting pediatric readmission rates will be hospitals with a large volume of pediatric patients.
    - The developers also explained that small volumes of pediatric patients are a global challenge for pediatric measurement.
- The Committee acknowledged the lack of pediatric measures with which to correlate this measure with is a threat to validity. The developer noted that they were unable to assess how performance on this measure correlated with performance on other measures due to the unavailability of other pediatric inpatient measures for comparison.
- The Committee also noted that 10 percent of the hospitalizations were missing key data thus excluding them from the measure. Additionally, the Committee discussion highlighted the exclusion of specialty hospitals (Cancer, Orthopedic, Shriners Hospitals, and hospitals that do not provide acute care).
- During the discussion the Committee highlighted the importance of included socio-demographic factors in the risk adjustment model, especially for pediatric populations.

3. Feasibility: H-3; M-18; 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)

<u>Rationale</u>:

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- The Committee discussed that the measure faces challenges in terms of implementation.
    - With regards to the use of Medicaid claims, the Committee expressed concerns that Medicaid claims are challenging to use as they vary from state to state and the Committee noted that the developer experienced model fitting issues when tested in the New York State database. The developer noted that they provided technical assistance to sites that had issues and anticipate the measure will be used for Medicaid programs to examine within-state comparisons.
    - The Committee also noted the challenge that children's health is covered by a number of insurance plans, spread among Medicaid and private insurance. The developer explained that Medicaid covers approximately one-third of hospitalized children and agreed that their analysis found higher readmission rates among children covered by Medicaid. Some members noted that comparisons to children covered by private insurance versus Medicaid are not always analogous. The developer agreed that in future iterations of this measure they would potentially adjust for insurance status.

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

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- The Committee noted that the reliability of the measure was highly dependent on case volume (similar to adult population) and questioned the usability of the measure given the smaller number of hospital that have a large enough pediatric population.
- While Committee members expressed concern about the lack of adjustment for sociodemographic factors for measures in this project, Members were particularly concerned about the unintended consequences that could result from lack of this adjustment for this pediatric measure.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-17**; **N-5**

6. Member and Public Comment

- Six comments were submitted on Measure 2393; several of these comments were supportive of the Committee's recommendation for endorsement, noting the importance of improving quality measurement in pediatric care. However, a number of specific concerns were raised about aspects of the measure. These included:
    - Concerns about the measure's lack of a methodology to exclude unpreventable readmissions or readmissions unrelated to the index admission, and the lack of testing to support the absence of such exclusions
    - Concerns about the adequacy of the measure's risk adjustment methodology, which some commenters suggested should incorporate additional factors

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

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

2414 Pediatric Lower Respiratory Infection Readmission Measure
Submission | Specifications
Description: This measure calculates case-mix-adjusted readmission rates, defined as the percentage of admissions followed by 1 or more readmissions within 30 days, following hospitalization for lower respiratory infection (LRI) in patients less than 18 years old. The measure covers patients discharged from general acute care hospitals, including children's hospitals. **Numerator Statement**: The numerator consists of hospitalizations at general acute care hospitals for LRI in patients less than 18 years old that are followed by 1 or more readmissions to general acute care hospitals within 30 days. Readmissions are excluded from the numerator if the readmission was for a planned procedure or for chemotherapy. The measure outcome is a readmission rate, defined as the percentage of index admissions with 1 or more readmissions within 30 days. The readmission rate, unadjusted for case-mix, is calculated as follows: number of index admissions with 1 or more readmissions within 30 days/ total number of index admissions **Denominator Statement**: Hospitalizations at general acute care hospitals for LRI in patients less than 18 years old. **Exclusions**: EXCLUSIONS FROM THE NUMERATOR (READMISSIONS) AND DENOMINATOR (INDEX HOSPITALIZATIONS) We exclude certain hospitalizations from the measure entirely (i.e., from the numerator and denominator) based on clinical criteria or for issues of data completeness or quality that could prevent assessment of eligibility for the measure cohort or compromise the accuracy of readmission rates. Hospitalizations are excluded from the measure if they meet any of the following criteria: 1. The hospitalization was at a specialty or non-acute care hospital. Rationale: The focus of the measure is admissions to hospitals that provide general pediatric acute care. Records for admissions to specialty and non-acute-care hospitals are therefore omitted from the dataset. Because hospital type cannot be determined for records with missing data in the hospital type variable, these records are also removed from the dataset. 2. Records for the hospitalization contain incomplete data for variables needed to assess eligibility for the measure or calculate readmission rates, including hospital type, patient identifier, admission date, discharge date, disposition status, date of birth, primary ICD-9 or principal ICD-10 diagnosis codes, and gender. Rationale: Complete and valid information for the variables listed above is needed to define the measure cohort and calculate case-mix-adjusted readmission rates. Identifying readmissions within 30 days requires information on dates of admission and end-of-service dates and the ability to link unique patient identifiers across inpatient claims records. Hospital identifiers are needed to determine the hospital at which index admissions occurred. The disposition status is needed to determine whether a patient was

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discharged or experienced some other outcome (e.g., was transferred to another acute care hospital, left against medical advice, died). Establishing a patient's eligibility for membership in the pediatric cohort and performing case-mix adjustment requires an accurate date of birth and end-of-service date. Because gender is 1 of the variables used for case-mix adjustment, episodes of care with missing or inconsistent gender cannot be evaluated in the measure.

3. Records for the hospitalization contain data of questionable quality for calculating readmission rates, including

a. Inconsistent date of birth across records for a patient.

b. Discharge date prior to admission date.

c. Admission or discharge date prior to date of birth.

d. Admission date after a disposition status of death during a prior hospitalization.

Rationale: Complete and valid information for the variables listed above is needed to define the measure cohort and calculate case-mix-adjusted readmission rates. Identifying readmissions within 30 days requires information on dates of admission and end-of-service. A valid disposition status is needed to determine whether a patient was discharged or experienced some other outcome (e.g., was transferred to another acute care hospital, left against medical advice, died). Establishing a patient's eligibility for membership in the pediatric cohort and performing case-mix adjustment requires an accurate date of birth and end-of-service date.

4. Codes other than ICD-9 or ICD-10 codes are used for the primary procedure.

Rationale: ICD-9 or ICD-10 procedure codes are necessary for applying clinical exclusions.

5. The patient was older than 18 years, 29 days at the time of admission.

Rationale: This age exclusion limits the population to pediatric patients and prevents inclusion of records that overlap with adult readmission measures. Age eligibility for inclusion in the measure is based on age at the time of discharge from the index admission. Because the focus of the measure is pediatric patients, a patient's hospitalization is ineligible for inclusion in the measure as an index admission if the patient was 18 years old or greater at the time of discharge. Because the subsequent observation period for readmissions is 30 days, a patient's hospitalization is ineligible for inclusion in the measure as a readmission if the patient was older than 18 years, 29 days at the start of the readmission.

6. The hospitalization was for obstetric care, including labor and delivery.

Rationale: Hospitalizations for obstetric conditions are excluded because care related to pregnancy does not generally fall within the purview of pediatric providers.

7. The primary ICD-9 or principal ICD-10 diagnosis code was for a mental health condition.

Rationale: Hospitalizations for mental health conditions are excluded because we found that hospitals with high readmission rates for mental health hospitalizations tend to have low readmission rates for hospitalizations for other conditions, and vice versa. We describe this analysis in detail in Section 2b.3 of the Measure Testing Submission Form.

8. The hospitalization was for birth of a healthy newborn.

Rationale: Hospitalizations for birth of healthy newborns are excluded because these hospitalizations, unlike all others, are not for evaluation and management of disease.

EXCLUSIONS FROM THE DENOMINATOR ONLY (INDEX HOSPITALIZATIONS ONLY)

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We also apply further exclusions to the denominator only (i.e., these hospitalizations are excluded from index hospitalizations but could still meet criteria for readmissions). Hospitalizations are excluded from the denominator only if they meet any of the following criteria:

9. The patient was 18 years old or greater at the time of discharge.

Rationale: Age eligibility for inclusion in the measure is based on age at the time of discharge from the index admission. Because the measure covers pediatric patients, a patient's hospitalization is ineligible for inclusion in the measure as an index admission if the patient was 18 years old or greater at the time of discharge.

10. The discharge disposition was death.

Rationale: A patient must be discharged alive from an index admission in order to be readmitted. Therefore, any record with a discharge disposition of death cannot serve as an index admission.

11. The discharge disposition was leaving the hospital against medical advice.

Rationale: A discharge disposition of leaving against medical advice indicates that a patient left care before the hospital determined that the patient was ready to leave.

12. The hospital has less than 80% of records with complete patient identifier, admission date, and discharge date or less than 80% of records with complete primary ICD-9 or principal ICD-10 diagnosis codes. (Records for these hospitals are still assessed as possible readmissions, but readmission rates are not calculated for these hospitals due to their lack of complete data.)

Rationale: Readmission rates are not calculated for hospitals missing large amounts of data for the above variables because these hospitals have limited data to accurately apply measure cohort exclusions and calculate case-mix-adjusted readmission rates. Assessing eligibility for the measure cohort and performing case-mix adjustment requires information on admission dates, end-of-service dates, and diagnosis codes. Identifying readmissions requires information on admission dates and end-of-service dates and the ability to link unique patient identifiers across inpatient claims records.

13. The hospital is in a state not being analyzed.

Rationale: A claims database used for readmission analysis may contain records for hospitals located in states that are not included in the database (because covered patients may sometimes be admitted to out-of-state hospitals). Records for these out-of-state hospital admissions are not excluded from the measure dataset because these records may meet criteria for being counted as readmissions as part of an in-state hospital's readmission rate. However, readmission rates are not calculated for out-of-state hospitals due to the lack of complete data for these hospitals.

14. Thirty days of follow-up data are not available for assessing readmissions.

Rationale: Identifying readmissions within 30 days requires a full 30 days of follow-up data.

15. The hospitalization does not have a primary ICD-9 or principal ICD-10 LRI diagnosis or does not have a secondary ICD-9 or additional ICD-10 LRI diagnosis plus a primary ICD-9 or principal ICD-10 diagnosis of asthma, respiratory failure, or sepsis/bacteremia.

Rationale: This measure focuses on readmissions following hospitalization for LRI. Episodes of care that do not meet the case definition for an LRI hospitalization are therefore excluded from index admissions.

Adjustment/Stratification:

Level of Analysis: Facility

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Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Center of Excellence for Pediatric Quality Measurement

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-19**; **N-2**; 1b. Performance Gap: **H-3**; **M-18**; **L-0**; **I-0;** 1c. Impact: **H-12**; **M-8**; **L-1**; **I-0**

Rationale:

- The Committee agreed that the rationale provided by the developer demonstrated readmissions can be improved through key processes, discharge planning, and care transitions.
- Committee members noted gaps in quality metrics for the pediatric population, and agreed that this outcome was important to measure and report.
- The Committee noted that the measure impacts a large number of pediatric patients and accounts for a large number of readmissions in hospitals. In addition, it noted that respiratory tract infections are one of the most common indications for hospitalization in Pediatrics, making it a high priority measure.

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

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

2a. Reliability: **H-1**; **M-18**; **L-2**; **I-0** 2b. Validity: **H-0**; **M-20**; **L-1**; **I-0**

Rationale:

- Similar to Measure 2393, Committee members noted that the reliability of the measure was highly dependent on case volume, which is similar to the adult population. The measure was found to be highly reliable at hospitals with an adequate sample size, but did not perform as well in those with a lower sample size. The Committee questioned the usability of the measure given the smaller number of hospitals that have a large enough pediatric population. The Committee noted that data used to assess validity was a 1-year data sample from Boston Children's Hospital and that sensitivity and specificity for identifying eligible readmissions were 87.0 percent and 99.7 percent, respectively.
- The Committee questioned whether seasonality would affect the measure, noting that lower respiratory infections are seasonal. The developer explained that seasonality should not be an issue and is accounted for as the measure is collected annually as opposed to monthly.
- The Committee agreed the measure had good predictive ability with a C-statistic of 0.71, which is interpreted as “substantial agreement.”

3. Feasibility: H-3; M-17; 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:

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• All data elements are in defined fields in electronic claims and these data are routinely collected as part of the billing process. • One concern was that the measure is based on Medicaid data and there is heterogeneity of Medicaid claims across states.
4. Use and Usability: H-0; M-17; L-4; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The Committee suggested that this pediatric readmission measure should be considered in the context of pediatric admissions. • While the Committee expressed concern on the lack of sociodemographic adjustment for the measures in this project, Members were particularly concerned about the unintended consequences that may result from lack of this adjustment for this pediatric measure.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-18**; **N-3**
6. Member and Public Comment • Six comments were submitted on Measure 2414; comments were similar to those submitted on measure 2393, with some commenters supporting the measure and others expressing concerns about the measure's lack of a methodology to exclude unpreventable and unrelated readmissions, as well as the adequacy of the risk adjustment model. • Two commenters also expressed concerns about the exclusion of specialty and non-acute care hospitals, with one arguing that this could exclude academic pediatric hospitals from the measure.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)
Submission | Specifications
Description: This measure estimates the risk-standardized rate of unplanned, all-cause readmissions for patients (Medicare fee-for-service [FFS] beneficiaries) discharged from an Inpatient Rehabilitation Facility (IRF) who were readmitted to a short-stay acute-care hospital or a Long-Term Care Hospital (LTCH), within 30 days of an IRF discharge. The measure is based on data for 24 months of IRF discharges to non-hospital post-acute levels of care or to the community. A risk-adjusted readmission rate for each facility is calculated as follows:

2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)

Step 1: Calculate the standardized risk ratio of the predicted number of readmissions at the facility divided by the expected number of readmissions for the same patients if treated at the average facility. The magnitude of the risk-standardized ratio is the indicator of a facility's effects on readmission rates.

Step 2: The standardized risk ratio is then multiplied by the mean rate of readmission in the population (i.e., all Medicare FFS patients included in the measure) to generate the facility-level standardized readmission rate.

For this measure, readmissions that are usually for planned procedures are excluded. Please refer to Appendix Tables A1-A5 for a list of planned procedures.

The measure specifications are designed to harmonize with CMS' hospital-wide readmission (HWR) measure to a great extent. The HWR (NQF #1789) estimates the hospital-level, risk-standardized rate of unplanned, all-cause readmissions within 30 days of a hospital discharge, similar to this IRF readmission measure.

Numerator Statement: The numerator is mathematically related to the number of patients in the target population who have the event of an unplanned readmission in the 30- day post-discharge window. The measure does not have a simple form for the numerator and denominator—that is, the risk adjustment method used does not make the observed number of readmissions the numerator and a predicted number the denominator. Instead, the numerator is the risk-adjusted estimate of the number of unplanned readmissions that occurred within 30 days from discharge. This estimate includes risk adjustment for patient characteristics and a statistical estimate of the facility effect beyond patient mix.

Denominator Statement: The denominator is computed with the same model used for the numerator. It is the model developed using all non-excluded IRF stays in the national data. For a particular facility the model is applied to the patient population, but the facility effect term is 0. In effect, it is the number of readmissions that would be expected for that patient population at the average IRF. The measure includes all the IRF stays in the measurement period that are observed in national Medicare FFS data and do not fall into an excluded category.

Exclusions: The measure excludes some IRF patient stays; some of these exclusions result from data limitations.

The following are the measure's denominator exclusions, including the rationale for exclusion:

1. IRF patients who died during the IRF stay.

Rationale: A post-discharge readmission measure is not relevant for patients who died during their IRF stay.

2. IRF patients less than 18 years old.

Rationale: IRF patients under 18 years old are not included in the target population for this measure. Pediatric patients are relatively few and may have different patterns of care from adults.

3. IRF patients who were transferred at the end of a stay to another IRF or short-term acute care hospital.

Rationale: Patients who were transferred to another IRF or short-term acute-care hospital are excluded from this measure because the transfer suggests that either their IRF treatment has not been completed or that their condition worsened, requiring a transfer back to the acute care setting. The intent of the

2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)

measure is to follow patients deemed well enough to be discharged to a less intensive care setting (i.e., discharged to less intense levels of care or to the community).

4. Patients who were not continuously enrolled in Part A FFS Medicare for the 12 months prior to the IRF stay admission date, and at least 30 days after IRF stay discharge date.

Rationale: The adjustment for certain comorbid conditions in the measure requires information on acute inpatient bills for 1 year prior to the IRF admission, and readmissions must be observable in the observation window following discharge. Patients without Part A coverage or who are enrolled in Medicare Advantage plans will not have complete inpatient claims in the system.

5. Patients who did not have a short-term acute-care stay within 30 days prior to an IRF stay admission date.

Rationale: This measure requires information from the prior short-term acute-care stay in the elements used for risk adjustment.

6. IRF patients discharged against medical advice (AMA).

Rationale: Patients discharged AMA are excluded because these patients have not completed their full course of treatment in the opinion of the facility.

7. IRF patients for whom the prior short-term acute-care stay was for nonsurgical treatment of cancer.

Rationale: Consistent with the HWR Measure, patients for whom the prior short-term acute-care stay was for nonsurgical treatment of cancer are excluded because these patients were identified as following a very different trajectory after discharge, with a particularly high mortality rate.

8. IRF stays with data that are problematic (e.g., anomalous records for hospital stays that overlap wholly or in part or are otherwise erroneous or contradictory).

Rationale: This measure requires accurate information from the IRF stay and prior short-term acute-care stays in the elements used for risk adjustment. No-pay IRF stays involving exhaustion of Part A benefits are also excluded.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility

Type of Measure: Outcome

Data Source: Administrative claims, Other

Measure Steward: Centers for Medicare & Medicaid Services (CMS)

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-21; N-3**; 1b. Performance Gap: **H-3**; **M-13**; **L-8**; **I-0;** 1c. Impact: **H-6**; **M-13**; **L-3**; **I-0**

<u>Rationale</u>:

- The Committee noted that the process-outcome linkage cited by the developer was based on Hospital Readmissions as opposed to Inpatient Rehabilitation Facilities. The developer explained

2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)
that the evidence base around readmissions after post-acute care is very limited, noting that this measure will provide some insights into how care transitions occur for this patient population. • Analysis provided by the developer showed variation in readmission rates by facilities. The risk-standardized readmission rate (RSRR) ranged from 11.1 percent to 16.1 percent across all IRFs based on 2010 and 2011 data. The Committee agreed that these data indicated a reasonable range of improvement possible even within the compressed range of this measure. • Committee expressed a desire to have the measure be able to distinguish different clinical cohorts, noting that that the variation in performance would be reduced more if the measure could distinguish how facilities are doing by clinical cohort. The developer confirmed that clinical cohorts are indeed included as part of the risk adjustment model, and were added in an effort to prevent gaming of the measure. • The Committee agreed that the measure was high priority, noting that 13.5 percent of patients are readmitted from an IRF.
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-16**; **L-4**; **I-0** 2b. Validity: **H-1**; **M-16**; **L-6**; **I-1** <u>Rationale</u>: • The Committee expressed concern with the developer's use of shrinkage estimators. Members noted that quality differences for low volume hospitals may not be able to be detected because small volume hospitals may be pulled closer to the mean performance of all hospitals in the population. While the developer explained that shrinkage estimators provide a more stable estimate of performance, the Committee argued that for public reporting and accountability this methodology may not be ideal. Ultimately the developer concluded that while shrinkage does occur; the measure can still distinguish a large proportion of hospitals that vary in size. • The Committee raised an issue around the 24-month time period for the data. The measure is based on 24 months of Medicare fee-for-service claims data and Committee members questioned whether a 24-month evaluation was something that could be acted on in a timely fashion. • The Committee questioned why transfers were excluded from the measure. The developer explained that issues regarding transfers might need to be evaluated as a separate measure. Several Committee Members disagreed and concluded that this exclusion could lead to unintended consequences where facilities are transferring patients towards the end of their stay, who may not be ready for discharge, knowing that it would not count against them as a readmission. • The developers provided Split Sample reliability testing, which involved calculating the level of agreement between facilities scored. Agreement was evaluated using intraclass correlations (ICC) and the developers calculated an ICC of 0.39, indicating agreement between facilities' Standardized Risk Ratios.
3. Feasibility: H-18; M-6; L-0; I-0

2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)

(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 required data elements are routinely generated and used during care delivery and are in defined fields in electronic claims.

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

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- The Committee noted that CMS is developing this readmission measure in order to publicly report this measure as part of the Inpatient Rehab Facility Quality Reporting Program.
- The developer noted that at this time, CMS is working to establish procedures for public reporting, including procedures that provide the opportunity for IRFs to review their data before it is made public.
- The Committee noted that transfers being excluded might lead to unintended consequences and some degree of gaming the measure.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-16**; **N-8**

6. Member and Public Comment

- The Committee received eight comments, many of which questioned why the developer did not use patient-level data from the Patient Assessment Instrument or the FIM® Instrument, which specifically looks at functional status. Commenters noted that including patient-level data would likely improve the risk adjustment model and would be helpful in characterizing and understanding readmission patterns. Additionally, commenters recommended the exclusion of patients who died as well as planned readmissions to improve the risk-adjustment model.
- Other commenters questioned the appropriateness of combining data from IRFs and LTCHs, noting the differences between these patient populations and recommending that the data be split by type of provider. Commenters further suggested that additional provider-specific data should include information such as the presence of a teaching program and whether the institution is a rural provider. Commenters also questioned the usability of this measure, given that claims data are not readily available to hospitals and hospitals would not be able to replicate the data to be useful for quality improvement.
- Finally, one commenter argued that measuring 30 days post-discharge is too long of a time period, leading to a greater likelihood of counting readmissions that are unrelated to the initial condition or outside of the discharging hospital's control.

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

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

2502 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Inpatient Rehabilitation Facilities (IRFs)
9. Appeals

2503 Hospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries
Submission | Specifications
Description: Number of hospital discharges from an acute care hospital (PPS or CAH) per 1000 FFS Medicare beneficiaries at the state and community level by quarter and year. **Numerator Statement**: Number of hospital discharges from an acute care hospital (PPS or CAH) **Denominator Statement**: Medicare FFS beneficiaries, prorated based on the number of days of FFS eligibility in the time period (quarter or year). **Exclusions**: None **Adjustment/Stratification**: **Level of Analysis:** Population : Community, Population : State **Setting of Care:** Other **Type of Measure**: Outcome **Data Source**: Administrative claims, Other **Measure Steward**: Centers for Medicare & Medicaid Services
STANDING COMMITTEE MEETING [05/05/2014-05/06/2014] **1. Importance to Measure and Report: The measure meets the Importance criteria** (1a. Evidence, 1b. Performance Gap, 1c. High Impact) 1a. Evidence: **Y-22; N-2**; 1b. Performance Gap: **H-19**; **M-3**; **L-2**; **I-0;** 1c. Impact: **H-20**; **M-3**; **L-1**; **I-0** Rationale: • The Committee found the rationale to be clear, with data drawn from prior work on readmissions. Committee members acknowledged the importance of community events as compared to hospital events with respect to hospitalization rates; thus the need for a community-based measure. • Committee members noted a wide variation in hospitalization rates among the Medicare FFS population. • The Committee considered this to be a high-priority and high-impact measure given its impact on resource utilization, particularly in terms of the Medicare population. A study cited by the developer found that in 2004, almost 12 million Medicare fee-for-service (FFS) beneficiaries were hospitalized and one in five of these were readmitted within 30 days.
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-18**; **M-6**; **L-0**; **I-0**; 2b. Validity: **H-2**; **M-13**; **L-8**; **I-1** Rationale: • The reliability methods used by the developer included split-sample and test/retest approaches. According to data cited by the developer, correlation coefficients and quintile agreements

2503 Hospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries
suggested high reliability for annual and quarterly hospitalizations per 1000 beneficiaries when computed both at the state/territory and community levels. • Committee members noted that admission rates are seasonal, with significant variation. The Committee expressed concerns about the validity results relying on Atul Gawande's article on variation between Miami, McAllen, El Paso, and Grand Junction. Since there was no other validity data provided, the measure was assessed to be moderate in terms of validity. • Committee members expressed concern over the lack of risk adjustment for the measure noting that there are significant disparities in terms of race and ethnicity between communities. • Several Committee members were concerned about how this measure would be used, specifically because this measure focuses on a single community's performance over time. Committee members were concerned that if the measure were to be NQF-endorsed and publicly-reported, there would inevitably be comparisons made between communities.
3. Feasibility: H-22; M-1; L-0; I-0 *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • The required data elements are routinely generated and used during care delivery and all data elements are in defined fields in electronic claims
4. Use and Usability: H-5; M-7; L-12; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The Committee had concerns about this measure being used without risk-adjustment, specifically because this would mean that all communities could improve the same amount without a standard. In addition, a few Committee members noted the issues of rural-urban accessibility and a needs assessment for each community. Developers explained that they did not risk-adjust because they did not want communities to compare themselves to other communities due to differing community characteristics.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-16**; **N-4**
6. Member and Public Comment • NQF received twelve comments on Measure 2503 and Measure 2504 raising similar topics across both measures. Several commenters were supportive of the measure, noting that these types of measures help providers and communities understand areas in need of improvement. • These commenters noted that the measure passed all of the must-pass sub-criteria and contended that the Standing Committee should recommend the measure. • Other commenters noted that the measures should be risk adjusted to appropriately assess differences in community performance. • Finally, commenters also encouraged the measure developer to expand the measure to include

2503 Hospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries
Medicaid patients.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2504 30-day Rehospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries
Submission | Specifications
Description: Number of rehospitalizations occurring within 30 days of discharge from an acute care hospital (prospective payment system (PPS) or critical access hospital (CAH)) per 1000 FFS Medicare beneficiaries at the state and community level by quarter and year. **Numerator Statement**: Number of rehospitalizations within 30 days of discharge from an acute care hospital (PPS or CAH). **Denominator Statement**: Medicare FFS beneficiaries, prorated based on the number of days of FFS eligibility in the time period (quarter or year). **Exclusions**: None **Adjustment/Stratification**: **Level of Analysis:** Population : Community, Population : State **Setting of Care:** Other **Type of Measure**: Outcome **Data Source**: Administrative claims, Other **Measure Steward**: Centers for Medicare & Medicaid Services
STANDING COMMITTEE MEETING [05/05/2014-05/06/2014] **1. Importance to Measure and Report: The measure meets the Importance criteria** (1a. Evidence, 1b. Performance Gap, 1c. High Impact) 1a. Evidence: **Y-21; N-1**; 1b. Performance Gap: **H-17**; **M-4**; **L-2**; **I-0;** 1c. Impact: **H-15**; **M-6**; **L-2**; **I-0** Rationale: • Committee members noted that there is evidence to support the rationale at the hospital level, but less evidence to support the rationale at the population level. However, they acknowledged that multiple entities in the community have a responsibility to help reduce the rates of readmissions back to the hospital. • According to one study cited by the developer, there is substantial geographic variability suggesting significant opportunity for improvement. • Committee members acknowledged that this is a high-priority issue due to the large number of patients affected and the high costs associated with re-hospitalizations among Medicare beneficiaries.
2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria (2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2504 30-day Rehospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries

2a. Reliability: **H-18**; **M-6**; **L-0**; **I-0** 2b. Validity: **H-4**; **M-12**; **L-7**; **I-1**

Rationale:

- The Committee noted that the measure was specified with an appropriate level of detail, with a clear numerator and denominator. In addition, members acknowledged that the measure has high reliability due to large sample sizes.
- Committee members expressed concern over the lack of risk adjustment for the measure. They noted that there are significant disparities in terms of race and ethnicity between communities.
- A few Committee members observed that admission and readmission rates are related and explained that admission rates, not readmissions rates, were decreasing with community intervention. Developers explained that in the 14 community pilots, admission and readmission rates correlated almost exactly.

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

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

Rationale:

- The required data elements are routinely generated and used during care delivery and all data elements are in defined fields in electronic claims

4. Use and Usability: H-4; M-11; L-9; I-0

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- Some Committee members argued that this measure should be limited to quality improvement interventions rather than accountability applications since the measure can only be used to compare communities to themselves over time. The Committee noted that planned admissions are not excluded from the measure. Members of the Committee were concerned that this may result in delays for needed care outside of the 30 day window.
- Similar to Measure 2503, the Committee had concerns about this measure being used without risk-adjustment, specifically because this would mean that all communities could improve the same amount without a standard. In addition, a few Committee members noted the issues of rural-urban accessibility and a needs assessment for each community. Developers explained that they did not risk-adjust because they did not want communities to compare themselves to other communities due to differing community characteristics.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-14**; **N-6**

6. Member and Public Comment

- NQF received twelve comments on Measure 2503 and Measure 2504 raising similar topics across both measures. Several commenters were supportive of the measure, noting that these types of measures help providers and communities understand areas in need of improvement.

2504 30-day Rehospitalizations per 1000 Medicare fee-for-service (FFS) Beneficiaries
• These commenters noted that the measure passed all of the must-pass sub-criteria and contended that it should be recommended by the Standing Committee. • Other commenters noted that the measures should be risk adjusted to appropriately assess differences in community performance. • Finally, commenters also encouraged the measure developer to expand the measure to include Medicaid patients.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2505 Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health
Submission | Specifications
Description: Percentage of Home Health stays in which patients who had an acute inpatient hospitalization in the 5 days before the start of their Home Health stay used an emergency department but were not admitted to an acute care hospital during the 30 days following the start of the Home Health stay. **Numerator Statement:** Number of Home Health stays for patients who have a Medicare claim for outpatient emergency department use and no claims for acute care hospitalization in the 30 days following the start of the Home Health stay. **Denominator Statement:** Number of Home Health stays that begin during the relevant observation period for patients who had an acute inpatient hospitalization in the five days prior to the start of the Home Health stay. A Home Health stay is a sequence of Home Health payment episodes separated from other Home Health payment episodes by at least 60 days. **Exclusions:** The measure denominator excludes several types of Home Health stays: First, the measure denominator for the Rehospitalization During the First 30 Days of Home Health measure excludes the following Home Health stays that are also excluded from the all-patient claims-based NQF 0171 Acute Care Hospitalization measure: (i) Stays for patients who are not continuously enrolled in fee-for-service Medicare during the measure numerator window; (ii) Stays that begin with a Low-Utilization Payment Adjustment (LUPA). Stays with four or fewer visits to the beneficiary qualify for LUPAs; (iii) Stays in which the patient is transferred to another Home Health agency within a Home Health payment episode (60 days); and (iv) Stays in which the patient is not continuously enrolled in Medicare fee-for-service during the previous six months. Second, to be consistent with the Hospital-Wide All-Cause Unplanned Readmission measure (as of January 2013), the measure denominator excludes stays in which the hospitalization occurring within 5 days of the start of Home Health care is not a qualifying inpatient stay. Hospitalizations that do not qualify as index hospitalizations include admissions for the medical treatment of cancer, primary psychiatric disease, or rehabilitation care, and admissions ending in patient discharge against medical advice. Third, the measure denominator excludes stays in which the patient receives treatment in another setting

2505 Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health

in the 5 days between hospital discharge and the start of Home Health.

Finally, stays with missing payment-episode authorization strings (needed for risk-adjustment) are excluded.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Home Health

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Centers for Medicare and Medicaid Services

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: Y-16; N-6; 1b. Performance Gap: H-12; **M-8**; **L-1**; **I-1; 1c. Impact: H-2**; **M-14**; **L-5**; **I-1**

Rationale:

- The Committee noted the importance of post-acute care coordination and reduction of hospital readmissions, however Committee members noted there was not a strong rationale provided by the developer to demonstrate 1) whether there is a strong process-outcome linkage that demonstrates Home Health Agencies (HHA) have control in preventing readmissions and 2) that there are substantial savings to incur in reducing readmissions.
    - Regarding the Committee's concerns around the relationship between HHA quality and ED admission, the Committee further noted that none of the studies provided examined the relationship between ED use with and without Home Health use. The developer provided additional rationale to the Committee which suggested that because some hospital readmissions and ED visits may not be preventable, HHA should not be expected to achieve a 0 percent readmission rate or ED use without hospital readmission rate for their patients.
    - Regarding concerns around evidence linking HHA specific interventions that can impact ED utilization, the developer explained that HHA follow best practice guidelines in order to reduce hospitalization rate including medication reconciliation, education, and physical therapy when needed.
- The Committee noted a large performance gap ranging from 3.9 percent to 29.3 percent, but questioned how much the performance gap could be closed through quality improvement initiatives.

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-4**; **M-14**; **L-3**; **I-1** 2b. Validity: **H-0**; **M-17**; **L-4**; **I-0**

Rationale:

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• The developer provided split-half reliability testing where 78 percent of the agencies were grouped into the same performance category, demonstrating a "high level of internal consistency." The Committee voiced concern there were no additional reliability statistics provided, specifically an interclass correlation coefficient (ICC) to determine reliability.
  ○ This issue was also discussed during the workgroup call and the developer provided additional explanation noting that an ICC would not be appropriate for assessing measure reliability as CMS intends to publicly report this measure using a categorical reporting method. This categorical reporting method does not attempt to distinguish between high and low performing agencies by comparing agencies' risk-adjusted rates; rather, each Home Health agency is classified into a performance category based on each Home Health agency's expected and observed rates.
• The Committee noted that the correlations to the OASIS assessment that were used to demonstrate validity were not directly associated with ED care, and as such did not necessarily demonstrate construct validity.
  ○ The mean differences in performance were consistently positive, ranging from 3.5 percent to 6.5 percent; however no additional description of how the correlations demonstrate validity of the performance score was provided.

3. Feasibility: H-10; M-10; L-1; I-0 *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • The required data elements are routinely generated and used during care delivery and are in defined fields in electronic claims.
4. Use and Usability: H-1; M-13; L-6; I-2 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The Committee voiced concern that while the measure is specified at the facility level, it is not clear that the measure is constructed for use only in HHA. The Committee cautioned that the measure could unintentionally be interpreted as a performance measure for Emergency Departments. The developer reiterated that the measure is only intended for use in HHA. • The Committee noted that CMS plans to publicly report this measure on Home Health Compare starting in 2015. This plan was finalized in the CMS Home Health Prospective Payment System final rule for CY2014. CMS intends to publish three general levels of performance for HHA on ED admission without hospitalization; better (lower) than expected, not different than expected, and worse (above) than expected. • As noted in earlier discussion, the Committee expressed concerns that there is not a large body of peer-reviewed evidence that has been published on the relationship between Home Health care and ED use without hospitalization. The Committee highlighted that due to the large degree

2505 Emergency Department Use without Hospital Readmission During the First 30 Days of Home Health
of variability in ED admission rates for HHAs, the high variability associated with expected rates, and the instability of the measure for smaller HHAs, that approval and implementation of this measure should potentially wait until further study is done. • Committee members cautioned that for Home Health, returns to the emergency department may be beyond the control of the HHA. • Additionally the Committee expressed concerns that smaller HHA in under-performing regions would be categorized as 'worse than expected' due to small numbers of patients in the facility.
5. Related and Competing Measures • This measure directly competes with Measure 0173: Emergency Department Use without Hospitalization—Percentage of Home Health stays in which patients used the emergency department but were not admitted to the hospital during the 60 days following the start of the Home Health stay. • The measure specifications for Measure 0173 and Measure 2505 were harmonized along several measure dimensions, including Data source, Population, Denominator Exclusions, Numerator, and Risk Adjustment methodology. • The developers of this measure argued that the measure differences justify having 2 measures. They further explained, whereas Measure 0173 evaluates patient admission to an emergency department (without hospitalization) during the 60 days following the start of Home Health stay, Measure 2505 evaluates admission to the emergency department (without hospital readmission) within 30 days after starting Home Health care for patients who were recently discharged from an inpatient setting. Home Health agencies can track their own performance on both utilization measures to gain an accurate picture of how much acute care is being used by their patients. • As with the previously considered Home Health measures, it should be noted that Measure 2505 is an outcome measure assessing the efficacy of care coordination as patients transition from inpatient acute care to outpatient Home Health services. In contrast, Measure 0173 assesses the efficacy of clinical care provided to all patients as indicated by rates of hospitalization after entry into Home Health services. These are distinct domains of care under the CMS Quality Strategy and reflect related, but distinct care quality concepts. • According to NQF guidance, since Measure 0173 was not evaluated in this project the Committee will not make a recommendation with regards to these 2 competing measures. A recommendation may be made at a later date
Standing Committee Recommendation for Endorsement: **Y-15**; **N-7**
6. Member and Public Comment • The Committee received a number of comments questioning the appropriateness of holding home health agencies accountable for readmissions; these commenters suggested that many of the factors leading to hospital readmission are not within home health agencies' control. • Commenters noted that when acute exacerbations of chronic conditions occur, a return to the ED may be warranted, and a follow-up visit to an ED does not necessarily constitute a failure of home health care.

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• Commenters stressed that appropriate risk adjustment for this measure is necessary to prevent unintended consequences stemming from potential disincentives to treat patients who may be at higher risk of rehospitalization and/or ED use. Additionally, commenters requested that the developer make explicit in its specifications that the level of analysis for this measure is the home health agency and not the ED. • Commenters also raised harmonization concerns, observing that this measure is similar to the already-endorsed Measure 0173. Commenters noted that Measure 2505 counts ED use during the first 30 days of home health, while Measure 0173 counts ED use within the first 60 days of home health, urging the Committee to consider whether one of these time windows is more clinically meaningful than the other and requesting that CMS synthesize the two measures into one.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2510 Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)
Submission | Specifications
Description: This measure estimates the risk-standardized rate of all-cause, unplanned, hospital readmissions for patients who have been admitted to a Skilled Nursing Facility (SNF) (Medicare fee-for-service [FFS] beneficiaries) within 30 days of discharge from their prior proximal hospitalization. The prior proximal hospitalization is defined as an admission to an IPPS, CAH, or a psychiatric hospital. The measure is based on data for 12 months of SNF admissions. A risk-adjusted readmission rate for each facility is calculated as follows: Step 1: Calculate the standardized risk ratio of the predicted number of readmissions at the facility divided by the expected number of readmissions for the same patients if treated at the average facility. The magnitude of the risk-standardized ratio is the indicator of a facility's effects on readmission rates. Step 2: The standardized risk ratio is then multiplied by the mean rate of readmission in the population (i.e., all Medicare FFS patients included in the measure) to generate the facility-level standardized readmission rate. For this measure, readmissions that are usually for planned procedures are excluded. Please refer to the Appendix, Tables 1 - 5 for a list of planned procedures. The measure specifications are designed to harmonize with CMS' hospital-wide readmission (HWR) measure to the greatest extent possible. The HWR (NQF #1789) estimates the hospital-level, risk-standardize rate of unplanned, all-cause readmissions within 30 days of a hospital discharge and uses the same 30-day risk window as the SNFRM. **Numerator Statement**: This measure is designed to capture the outcome of unplanned all-cause hospital readmissions (IPPS or CAH) of SNF patients occurring within 30 days of discharge from the patient's prior proximal acute hospitalization.

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The numerator is more specifically defined as the risk-adjusted estimate of the number of unplanned readmissions that occurred within 30 days from discharge from the prior proximal acute hospitalization. The numerator is mathematically related to the number of SNF stays where there was hospitalization readmission, but the measure does not have a simple form for the numerator and denominator—that is, the risk adjustment method used does not make the observed number of readmissions the numerator and a predicted number the denominator. The numerator, as defined, includes risk adjustment for patient characteristics and a statistical estimate of the facility effect beyond patient mix.

Hospital readmissions that occur after discharge from the SNF stay but within 30 days of the proximal hospitalization are also included in the numerator. Readmissions identified using the Planned Readmission algorithm (see Section S.6) are excluded from the numerator. This measure does not include observation stays as a readmission (see Section S.6).

Denominator Statement: The denominator is computed with the same model used for the numerator. It is the model developed using all non-excluded SNF stays in the national data. For a particular facility the model is applied to the patient population, but the facility effect term is 0. In effect, it is the number of SNF admissions within 1 day of a prior proximal hospital discharge during a target year, taking denominator exclusions into account. Prior proximal hospitalizations are defined as admissions to an IPPS acute-care hospital, CAH, or psychiatric hospital.

Exclusions: The following are excluded from the denominator:

1. SNF stays where the patient had one or more intervening post-acute care (PAC) admissions (inpatient rehabilitation facility [IRF] or long-term care hospital [LTCH]) which occurred either between the prior proximal hospital discharge and SNF admission or after the SNF discharge, within the 30-day risk window. Also excluded are SNF admissions where the patient had multiple SNF admissions after the prior proximal hospitalization, within the 30-day risk window.

Rationale: For patients who have IRF or LTCH admissions prior to their first SNF admission, these patients are starting their SNF admission later in the 30-day risk window and receiving other additional types of services as compared to patients admitted directly to the SNF from the prior proximal hospitalization. They are clinically different and their risk for readmission is different than the rest of SNF admissions. Additionally, when patients have multiple PAC admissions, evaluating quality of care coordination is confounded and even controversial in terms of attributing responsibility for a readmission among multiple PAC providers. Similarly, assigning responsibility for a readmission for patients who have multiple SNF admissions subsequent to their prior proximal hospitalization is also controversial.

2. SNF stays with a gap of greater than 1 day between discharge from the prior proximal hospitalization and the SNF admission.

Rationale: These patients are starting their SNF admissions later in the 30-day risk window than patients admitted directly to the SNF from the prior proximal hospitalization. They are clinically different and their risk for readmission is different than the rest of SNF admissions.

3. SNF stays where the patient did not have at least 12 months of FFS Medicare enrollment prior to the proximal hospital discharge (measured as enrollment during the month of proximal hospital discharge and the for 11 months prior to that discharge).

Rationale: FFS Medicare claims are used to identify comorbidities during the 12-month period prior to the proximal hospital discharge for risk adjustment. Multiple studies have shown that using lookback scans of

2510 Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)

a year or more of claims data provide superior predictive power for outcomes including rehospitalization as compared to using data from a single hospitalization (e.g., Klabunde et al., 2000; Preen et al, 2006; Zhang et al., 1999).

4. SNF stays in which the patient did not have FFS Medicare enrollment for the entire risk period (measured as enrollment during the month of proximal hospital discharge and the month following the month of discharge).

Rationale: Readmissions occurring within the 30-day risk window when the patient does not have FFS Medicare coverage cannot be detected using claims.

5. SNF stays in which the principal diagnosis for the prior proximal hospitalization was for the medical treatment of cancer. Patients with cancer whose principal diagnosis from the prior proximal hospitalization was for other diagnoses or for surgical treatment of their cancer remain in the measure.

Rationale: These admissions have a very different mortality and readmission risk than the rest of the Medicare population, and outcomes for these admissions do not correlate well with outcomes for other admissions.

6. SNF stays where the patient was discharged from the SNF against medical advice.

Rationale: The SNF was not able to complete care as needed.

7. SNF stays in which the principal primary diagnosis for the prior proximal hospitalization was for "rehabilitation care; fitting of prostheses and for the adjustment of devices".

Rationale: Hospital admissions for these conditions are not for acute care.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility

Type of Measure: Outcome

Data Source: Administrative claims, Other

Measure Steward: Centers for Medicare and Medicaid Services

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-23, 0-N**; 1b. Performance Gap: **H-18**; **M-6**; **L-0**; **I-0;** 1c. Impact: **H-19**; **M-5**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee agreed that there is a performance gap with performance ranging from 11.9 percent to 41.9 percent in the number of readmissions from the SNF to acute hospital.
- Some Committee members were concerned that the rationale presented by the developers related to studies done about acute care transfers and not transfers from SNF.
- Ultimately, the Committee agreed that processes that improve transitions, communications, and overall SNF care would improve performance on this measure.

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)

2510 Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)
2a. Reliability: **H-5**; **M-18**; **L-1**; **I-0** 2b. Validity: **H-1**; **M-17**; **L-7**; **I-0** Rationale: • The Committee noted that the reliability testing results (interclass correlation coefficient – 0.56) was low, but within a generally acceptable range. • In terms of validity, the Committee noted that the discrimination calibration with the C-statistics was 0.67. The group noted low correlation in the expected direction with the exception of pain management. • Some Committee members raised concerns related to potential threats to validity. One member noted that the exclusion rate of approximately 20 percent appeared high.   ○ The developer responded that the measure requires having 12 months of claims prior to the start of the hospitalization. In the case of new enrollees to the Medicare program and beneficiaries transitioning between Medicare fee-for-service and Medicare Advantage, it is possible that a full 12 months of claims data may not be available. This lack of data would exclude them from the measured population.
3. Feasibility: H-14; M-10; L-0; I-0 *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* Rationale: • The required data elements are routinely generated and used during care delivery and are in defined fields in electronic claims.
4. Use and Usability: H-1; M-16; L-7; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The Committee expressed concern that using a shrinkage estimator limits the ability to understand performance for PAC/LTCs with low volume. For consumers, using the terms 'no different than average' for PAC/LTCs with low volumes of patients is not meaningful.
5. Related and Competing Measures • This measure directly competes with Measure 2510: Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)—the risk-standardized rate of all-cause, unplanned, hospital readmissions for patients (Medicare fee-for-service [FFS] beneficiaries) who have been admitted to a Skilled Nursing Facility (SNF) within 30 days of discharge from their prior proximal hospitalization. The prior proximal hospitalization is defined as an admission to an IPPS, CAH, or a psychiatric hospital. The measure is based on data for 12 months of SNF admissions. • The principal difference between Measure 2375: PointRight OnPoint-30 SNF Rehospitalizations [AHCA], and Measure 2510: Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM) is the data source. Measure 2510 uses administrative claims data, and thus limited to Medicare fee-for-service patients. Measure 2375 uses the minimum data set (MDS), and includes both planned/unplanned readmissions since the data source does not currently include

2510 Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM)
reliable coding of this information. • In anticipation of the NQF endorsement process, CMS and AHCA collaborated to discuss the suitability of their respective SNF-based readmission measures for harmonization and agreed that the measure differences justify having 2 measures. • The Committee agreed with this sentiment and voted to recommend both Measure 2375: PointRight OnPoint-30 SNF Rehospitalizations [AHCA], and Measure 2510: Skilled Nursing Facility 30-Day All-Cause Readmission Measure (SNFRM) for endorsement.
Standing Committee Recommendation for Endorsement: **Y-19**; **N-5**
6. Member and Public Comment • A number of commenters argued that this measure lacks adequate risk adjustment since it relies on administrative claims to capture patient severity. • Commenters suggested harmonizing this measure with Measure 2375, recommending development of a hybrid measure combining data from both the Minimum Data Set (MDS) and claims. These commenters suggested that MDS data in Measure 2375 may enable a more robust risk adjustment methodology, but argued that the type of "planned readmission" algorithm used by CMS could strengthen the measure. • One commenter also encouraged CMS to exclude acute psychiatric inpatient stays from the index admission.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2513 Hospital 30-Day All-Cause Risk-Standardized Readmission Rate (RSRR) following Vascular Procedures
Submission | Specifications
Description: This measure estimates hospital risk-standardized 30-day unplanned readmission rates following hospital stays with one or more qualifying vascular procedure in patients who are 65 years of age or older and either admitted to the hospital (inpatients) for their vascular procedure(s) or receive their procedure(s) at a hospital but are not admitted as an inpatient (outpatients). Both scenarios are hereafter referred to as "hospital stays." **Numerator Statement**: The outcome for this measure is 30-day all-cause unplanned readmission following a qualifying index hospital stay (see S.7-S.11 for more details). We define a readmission as a subsequent hospital inpatient admission within 30 days of either the discharge date (for inpatients) or claim end date (for outpatients – hereafter referred to as "discharge date") following a qualifying hospital stay. We do not count as readmissions any subsequent outpatient procedures or any subsequent admissions which are identified as "staged" or planned. If a patient has more than one unplanned readmission within 30 days of discharge from the index hospital stay, only the first one is counted as a readmission. The measure looks for a dichotomous yes or no outcome of whether each index hospital stay has an unplanned readmission within 30 days. (See S.6, Numerator Details, for more information.)

2513 Hospital 30-Day All-Cause Risk-Standardized Readmission Rate (RSRR) following Vascular Procedures

Denominator Statement: The target population for this measure includes inpatient and outpatient hospital stays for patients at least 65 years of age who receive one or more qualifying vascular procedure.

Exclusions: Hospital stays are excluded from the cohort if they met any of the following criteria:

1) Lack of follow-up in Medicare FFS for at least 30 days post-discharge. Hospital stays for patients without at least 30 days of enrollment in Medicare FFS after discharge from the index stay are excluded.

Rationale: We exclude these hospital stays because the 30-day readmission outcome cannot be assessed in this group.

2) Hospital stays for patients who leave hospital against medical advice (AMA). Hospital stays for patients who are discharged AMA are excluded.

Rationale: We exclude hospital stays for patients who are discharged AMA because providers in these circumstances do not have the opportunity to deliver full care and prepare the patient for discharge.

3) Hospital stays with a qualifying vascular procedure that occur within 30 days of a previous hospital stay with a qualifying vascular procedure. Subsequent hospital stays with a qualifying vascular procedure within 30 days of discharge from an index hospital stay will not be counted as another index hospital stay.

Rationale: Qualifying vascular procedures occurring within 30 days of discharge from an index hospital stay fall within the 30-day readmission assessment period during which no new hospital stay can be counted as an index hospital stay. They are considered readmissions. Any vascular hospital stay is either an index stay or a potential readmission, but not both.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Centers for Medicare & Medicaid Services (CMS)

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-20; N-1**; 1b. Performance Gap: **H-4**; **M-17**; **L-0**; **I-0;** 1c. Impact: **H-16**; **M-5**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee noted that vascular surgery and readmissions was identified as one of the seven conditions which account for nearly 30 percent of potentially preventable readmissions within 15 days following discharge and that these conditions were responsible for $182 million in spending on readmissions.
- The Committee agreed there was a performance gap on this measure, noting that the interquartile range was between 12.9 and 14.3 percent.
- The Committee agreed that multiple factors impact readmission rates as illustrated in the measure information form (i.e., improved discharge planning, reconciling patient medications, and improving communications with outpatient providers can reduce readmission rates) which

2513 Hospital 30-Day All-Cause Risk-Standardized Readmission Rate (RSRR) following Vascular Procedures
supports the process-outcome linkage.
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-19**; **L-0**; **I-0** 2b. Validity: **H-0**; **M-20**; **L-0**; **I-1** <u>Rationale</u>: • The Committee noted that the measure uses Hierarchical Linear Modeling which accounts for patient characteristics and well as facility level characteristics. The model also includes 8 procedure categories which were based on both anatomical location at neck, thoracic, abdominal and limb as well as an "unspecified" category. The developers also included both endovascular procedures and conventional open procedures. • The Committee noted, that the interclass correlation coefficient (ICC) provided by the developer (0.40, interpreted as "moderate agreement") was comparable to other outcome measures of quality. • The Committee agreed the systematic face validity testing provided by the developer demonstrated the TEP agreed with overall validity of the measure as specified, concluding the measure could be used to distinguish quality. • The Committee agreed that the model indicated good discrimination (C-statistic was 0.67) indicating the ability to distinguish high-risk patients from low-risk patients.
3. Feasibility: H-17; M-4; 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)* <u>Rationale</u>: • All data elements are in defined fields in electronic claims and that these data are routinely collected as part of the billing process.
4. Use and Usability: H-1; M-11; L-4; I-4 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* <u>Rationale</u>: • The Committee expressed some uncertainty around implementation of the measure. The developers noted that CMS is considering use of this measure in public reporting in the Inpatient Quality Reporting Program or Outpatient Quality Reporting Program. • The Committee recognized that providing a breakdown of the anatomical procedures, instead of an overall vascular readmission rate would be helpful for quality improvement. The developers agreed and noted that in future iterations of the measures that could be a possibility. • The Committee noted that timeliness of feedback provided by CMS was important for quality improvement. CMS commented that they are working on providing raw data (instead of waiting for risk-adjusted score) to the hospitals on a quarterly basis to hospitals. • The Committee expressed concerns regarding the use of this measure for outpatient quality

2513 Hospital 30-Day All-Cause Risk-Standardized Readmission Rate (RSRR) following Vascular Procedures
reporting. It questioned whether there is a difference in risk associated with performing an outpatient vs. inpatient procedure and noted that care setting was not included in the risk adjustment model. The developer noted that in order for the measure to be clinically coherent, inpatient and outpatient vascular procedures were included in this measure and that care setting would not be an appropriate risk factor to adjust for, as the procedure most often define the risk, not the setting. The developer further noted that there is no additional risk undertaken during an outpatient procedure.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-14**; **N-6**
6. Member and Public Comment • NQF received three comments on Measure 2513, each raising concerns over the heterogeneity of the patient population covered by the measure. • Commenters noted that the measure combines three different sites of surgery, two different surgical approaches performed by multiple physician specialties, and two different settings.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate
Submission | Specifications
Description: Risk-adjusted percentage of Medicare fee-for-service beneficiaries aged 65 and older who undergo isolated coronary artery bypass grafting (CABG) and are discharged alive but have a subsequent acute care hospital inpatient admission within 30 days of the date of discharge from the CABG hospitalization. **Numerator Statement**: Number of Medicare fee-for-service beneficiaries aged 65 and older who undergo isolated coronary artery bypass grafting (CABG) and are discharged alive but have a subsequent acute care hospital inpatient admission within 30 days of the date of discharge from the CABG hospitalization. **Denominator Statement**: Number of Medicare fee-for-service beneficiaries aged 65 and older who undergo isolated coronary artery bypass grafting (CABG) during the designated 3-year measurement period and are discharged alive. **Exclusions**: Exclusion – Rationale • The patient is age <65 years on date of discharge according to CMS or STS data – Patients younger than 65 in the Medicare dataset represent a distinct population that qualifies for Medicare due to disability. The characteristics and outcomes of these patients may be less representative of the larger population of CABG patients. • There is a CMS record but no matching STS record – STS data elements are required for identifying the cohort and for risk adjustment.

2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate

- There is an STS record but not matching CMS record – Medicare data are required for ascertaining 30-day readmission status, especially readmissions to a hospital other than the CABG hospital
- CABG is not a stand-alone procedure – Inclusion of combination procedures complicates risk adjustment by adding multiple relatively rare cohorts with potentially distinct characteristics and outcomes.
- The patient died prior to discharge from acute care setting – Patient is not at risk of subsequent readmission.
- The patient leaves against medical advice (AMA). – Physicians and hospitals do not have the opportunity to deliver the highest quality care.
- The patient does not retain Medicare fee-for-service (FFS) A and B for at least two months after discharge – Beneficiaries who switch to a Medicare advantage plan are unlikely to file inpatient claims which are required for ascertaining 30-day readmission status.
- The index CABG episode is >365 days. – These patients were excluded for consistency with previous CMS readmission measures. These records may inaccurate admission and discharge dates. If not, including them would complicate risk adjustment by adding a relatively rare cohort with potentially distinct characteristics and outcomes.
- Not the first eligible CABG admission per patient per measurement period. – Simplifies statistical analysis. Also, repeat CABG procedures are very rare and so loss of information is minimal.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims, Electronic Clinical Data : Registry

Measure Steward: The Society of Thoracic Surgeons

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-22**; **N-0;** 1b. Performance Gap: **H-6**; **M-16**; **L-0**; **I-0;** 1c. Impact: **H-5**; **M-17**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee agreed with the rationale supporting the relationship between care processes for CABG and readmissions.
- Committee members noted a range in performance gap due to several determinants of health, showing that there is opportunity for improvement. The Committee agreed that this measure was important to measure and report noting that it is a procedure that incurs significant cost to Medicare program, and is a high volume procedure.

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-8**; **M-14**; **L-0**; **I-0** 2b. Validity: **H-4**; **M-17**; **L-1**; **I-0**

2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate

Rationale:

- Committee members assessed that reliability was moderate noting that the signal to noise ratio for the measure is 0.47, which is within a generally acceptable range. The developers noted that as case volume increases the reliability of the measure increases.
- One Committee member questioned the measure developer on the specifications of the measure, which includes patients who have a VAD (Ventricular Assist Device) implant during a CABG procedure. The developer's rationale for inclusion of VAD implantations was that these implantations are often unplanned during CABG and as such can impact the quality of the CABG procedure and subsequent perioperative care. The Committee agreed with this rationale, but noted that with high risk Heart Failure patients there is a very high likelihood that the patient will need a VAD placement, following CABG surgery.
- The Committee noted that patients who undergo a VAD procedure tend to have higher readmissions than those undergoing isolated CABG. Consequently, by including CABG plus VAD in this particular patient population, there is a high risk of penalizing tertiary and quaternary care centers that treat patients with advance heart failure.
- The developer noted that the STS database has been modified so that VAD are now tracked as to whether it was a planned or unplanned insertion. The developer plans to update the measure once this data becomes available.
- Since the measure uses two different data sources, Committee Members questioned how many beneficiaries overlap across the two datasets, Medicare fee-for-service (FFS) and the STS clinical data registry. According to the developer, from the Medicare fee-for-service data to the STS data, there is high fidelity (in the high nineties) across the two data sources, however from the STS data to the Medicare fee-for-service data this number drops to 85 percent.
    - The developer noted one reason there is not a direct 1:1 match is because not all patients in the STS dataset are Medicare fee-for-service beneficiaries (i.e., that claims information for Medicare Advantage patients does not exist)

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

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

Rationale:

- The Committee assessed the feasibility to be quite reasonable and noted the minor issue with linking patients across the Medicare data and STS data. Committee members expressed a desire for direct linkages using Social Security Numbers to improve accuracy.
- One Committee member questioned the proprietary nature of using the STS database, noting that potential fees associated with using the database could cause barriers for use by others, specifically the public and consumer organizations. The developers stated that the Society of Thoracic Surgeons is an advocate of public reporting and described two ways to get the information: from the STS website (www.sts.org) or Consumer Reports.

4. Use and Usability: H-13; M-9; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability

2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate

and 4b. Quality Improvement)

Rationale:

- The Committee noted potential gaming where an elective procedure would not be performed, in order to not affect the readmission rate. However, it did acknowledge that since STS has been reporting data for some time, it should not have any significant incremental impact on selecting cases based on a risk of readmissions.
- The Committee noted, this measure was developed under contract with CMS, and may be used for public reporting in conjunction with Measure 2512: Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery.

5. Related and Competing Measures

- This measure directly competes with Measure 2515: Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery.
- The measure specifications for Measure 2514 and Measure 2515 were harmonized along several measure dimensions, including measure cohort, assessment of isolated CABG, and inclusion of VAD procedures.
- These two measures were funded by CMS to develop complementary measures that utilize a range of available data for quality measurements. The principal difference between these two measures is the data source. Measure 2514 uses registry data to calculate the measure cohort and the risk model and then uses administrative data to calculate the outcome of readmissions, while Measure 2515 uses administrative claims data for both the risk model and the readmissions outcome.
- Additionally, the developers note that while the risk adjustment differs for each data source, identical statistical approaches are used, both models use hierarchical logistic regression and produce similar c-statistics (correlation coefficients >0.91, depending upon statistic used).
- The developers of this measure agreed that the measure differences justify having 2 measures. They note, that having two fully harmonized measures will capture widest possible group of patients. Further, the use of both measures represents a natural progression to develop electronic measures using clinical-based data. Both developers further agreed that incorporating clinical data in quality measures, whenever appropriate and feasible, strengthens the face validity of a measure.
- The Committee agreed with this assessment and voted to recommend both Measure 2514: Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate (STS) and Measure 2515: Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery (CMS) for endorsement.

Standing Committee Recommendation for Endorsement: **Y-22**; **N-0**

6. Member and Public Comment

- Commenters disagreed that the two CABG readmission measures are harmonized to the extent possible. Commenters discussed the differences between the two CABG measures, noting that Measure 2515 uses administrative claims and can feasibly incorporate the CMS "planned readmissions" algorithm, while Measure 2514 uses clinical data that is potentially important for

2514 Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate
high-volume facilities and facilities with higher-risk patients. Commenters encouraged the Committee to defer endorsement decisions and recommended that the developers collaborate on a single hybrid measure, noting that the CABG readmission measure should be analogous to the PCI readmission measure (Measure 0695), which links clinical registry data from the American College of Cardiology registry with Medicare claims data and removes planned readmissions from the outcome. • Other comments asked the developer to provide additional data on the variance in measurement between these two measures, noting that data submitted for Measure 2515 suggests that nearly 8 percent of hospitals have a difference of one percent or more in their results. Comments cautioned that while the differences may appear small, they matter significantly in the context of pay-for-performance programs.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2515 Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery
Submission | Specifications
Description: The measure estimates a hospital-level risk-standardized readmission rate (RSRR), defined as unplanned readmission for any cause within 30 days from the date of discharge of the index CABG procedure, for patients 18 years and older discharged from the hospital after undergoing a qualifying isolated CABG procedure. The measure was developed using Medicare Fee-for-Service (FFS) patients 65 years and older and was tested in all-payer patients 18 years and older. An index admission is the hospitalization for a qualifying isolated CABG procedure considered for the readmission outcome. **Numerator Statement**: The outcome for this measure is 30-day all-cause readmission. We define all-cause readmission as an unplanned inpatient admission for any cause within 30 days after the date of discharge from the index admission for patients 18 years and older discharged from the hospital after undergoing isolated CABG surgery. If a patient has one or more unplanned admissions (for any reason) within 30 days after discharge from the index admission, only one is counted as a readmission. **Denominator Statement**: This claims-based measure can be used in either of two patient cohorts: (1) patients aged 65 years or older or (2) patients aged 18 years or older. We have tested the measure in both age groups. The cohort includes admissions for patients who receive a qualifying isolated CABG procedure (see codes below) and with a complete claims history for the 12 months prior to admission. For simplicity of implementation and as testing demonstrated closely correlated patient-level and hospital-level results using models with or without age interaction terms, the only recommended modification to the measure for application to all-payer data sets is replacement of the "Age-65" variable with a fully continuous age variable.

2515 Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery

Exclusions: In order to create a clinically coherent population for risk adjustment and in accordance with existing NQF-approved CABG measures and clinical expert opinion, the measure is intended to capture isolated CABG patients (i.e., patients undergoing CABG procedures without concomitant valve or other major cardiac or vascular procedures).

For all cohorts, hospitalizations are excluded if they meet any of the following criteria. Hospitalizations for:

1) Patients who leave the hospital against medical advice (AMA)

Rationale: We exclude hospitalizations for patients who are discharged AMA because providers did not have the opportunity to deliver full care and prepare the patient for discharge.

2) Patients with qualifying CABG procedures subsequent to another qualifying CABG procedure during the measurement period.

Rationale: CABG procedures are expected to last for several years without the need for revision or repeat revascularization. A repeat CABG procedure during the measurement period very likely represents a complication of the original CABG procedure and is a clinically more complex and higher risk surgery. We, therefore, select the first CABG admission for inclusion in the measure and exclude subsequent CABG admissions from the cohort.

For Medicare FFS patients, the measure additionally excludes:

3) Patients without at least 30 days post-discharge enrollment in FFS Medicare.

Rationale: We exclude these hospitalizations because the 30-day readmission outcome cannot be assessed in this group.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Centers for Medicare & Medicaid Services (CMS)

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-22**; **N-0;** 1b. Performance Gap: **H-9**; **M-13**; **L-0**; **I-0;** 1c. Impact: **H-18**; **M-4**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee observed the similarities between this measure and Measure 2514, both of which focus on readmissions following CABG. The Committee agreed with the rationale provided by the developer, which stated that care processes within hospitals impact the rate of readmissions within 30 days following discharge. The Committee members noted a range of readmissions rates between 12 and 21.1 percent, with a mean performance of 16.8 percent. This range represents a performance gap and opportunity for improvement.
- The Committee considered this measure to be high priority due to the large costs associated with

2515 Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery
CABG surgery, which could potentially be prevented. Data submitted by the developer cites the annual preventable CABG readmission costs to Medicare as $151 million.
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-1**; **M-21**; **L-0**; **I-0** 2b. Validity: **H-2**; **M-20**; **L-0**; **I-0** <u>Rationale</u>: • The evidence base for the measure included a test/retest split sample to assess the reliability of the measure. The developers noted an interclass correlation coefficient of 0.331, which is considered to be "fair". During evaluation of the measure's validity, the Committee noted that the measures c-statistic was 0.63, which is similar to other outcome measures and Measure 2514. • One Committee member raised the question that since this is administrative data, the VAD patients could only be included or excluded, but not put into subsets of elective and non-elective, unlike Measure 2514. • Several Committee members questioned whether outpatient death prior to readmission is excluded and asked if additional analysis could be provided to determine how common death within 30 days is. The developer replied that those who die within 30 days in the hospital are excluded from this measure. However, there are a small proportion of patients who die after discharge from the hospital, which allows it to capture a spectrum of quality outcomes and prevents any unintended consequences.
3. Feasibility: H-20; M-2; L-0; I-0 *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* <u>Rationale</u>: • Committee members noted the measure is based on claims data and is highly feasible. They noted that the measure uses Medicare Part A inpatient and outpatient and part B outpatient claims and the data elements are readily available.
4. Use and Usability: H-3; M-18; L-1; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* <u>Rationale</u>: • One Committee member raised concern on whether this measure would be able to sufficiently distinguish between high and low performance. Methods used to report this measure should ensure that differences are statistically different from one another. • Committee members evaluated this measure to be comprehensive enough to use for public reporting, and noted that CMS is considering use of this measure in public reporting.
5. Related and Competing Measures • This measure directly competes with Measure 2515: Hospital 30-day, all-cause, unplanned, risk-

2515 Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery

standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery.

- The measure specifications for Measure 2514 and Measure 2515 were harmonized along several measure dimensions, including measure cohort, assessment of isolated CABG, and inclusion of VAD procedures.
- These two measures were funded by CMS to develop complementary measures that utilize a range of available data for quality measurements. The principal difference between these two measures is the data source. Measure 2514 uses registry data to calculate the measure cohort and the risk model and then uses administrative data to calculate the outcome of readmissions, while Measure 2515 uses administrative claims data for both the risk model and the readmissions outcome.
- Additionally, the developers note that while the risk-adjustment differs for each data source, identical statistical approaches are used, both models use hierarchical logistic regression and produce similar c-statistics (correlation coefficients >0.91, depending upon statistic used).
- The developers of this measure agreed that the measure differences justify having 2 measures. They note, that having two fully harmonized measures will capture widest possible group of patients. Further, the use of both measures represents a natural progression to develop electronic measures using clinical-based data. Both developers further agreed that incorporating clinical data in quality measures, whenever appropriate and feasible, strengthens the face validity of a measure.
- The Committee agreed with this assessment and voted to recommend both Measures 2514: Risk-Adjusted Coronary Artery Bypass Graft (CABG) Readmission Rate (STS) and Measure 2515: Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery (CMS) for endorsement.

Standing Committee Recommendation for Endorsement: **Y-21**; **N-1**

6. Member and Public Comment

- Commenters disagreed that the two CABG readmission measures are harmonized to the extent possible. Commenters discussed the differences between the two CABG measures, noting that Measure 2515 uses administrative claims and can feasibly incorporate the CMS “planned readmissions” algorithm, while Measure 2514 uses clinical data that is potentially important for high-volume facilities and facilities with higher-risk patients.
- Commenters encouraged the Committee to defer endorsement decisions and recommended that the developers collaborate on a single hybrid measure, noting that the CABG readmission measure should be analogous to the PCI readmission measure (Measure 0695), which links clinical registry data from the American College of Cardiology registry with Medicare claims data and removes planned readmissions from the outcome.
- Other comments asked the developer to provide additional data on the variance in measurement between these two measures, noting that data submitted for Measure 2515 suggests that nearly 8 percent of hospitals have a difference of one percent or more in their results. Comments cautioned that while the differences may appear small, they matter significantly in the context of

2515 Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery
pay-for-performance programs.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy
Submission | Specifications
Description: Rate of risk-standardized, all-cause, unplanned hospital visits within 7 days of an outpatient colonoscopy among Medicare fee-for-service (FFS) patients aged 65 years and older. **Numerator Statement**: The outcome for this measure is all-cause, unplanned hospital visits within 7 days of an outpatient colonoscopy. We define a hospital visit as any emergency department (ED) visit, observation stay, or unplanned inpatient admission. **Denominator Statement**: Colonoscopies performed at hospital outpatient departments (HOPDs) and ambulatory surgical centers (ASCs) for Medicare FFS patients aged 65 years and older. **Exclusions**: We established the following exclusion criteria after reviewing the literature, examining existing measures, and discussing alternatives with the working group and technical expert panel (TEP) members. The goal was to be as inclusive as possible; we excluded only those high-risk procedures and patient groups for which risk adjustment would not be adequate or for which hospital visits were not typically a quality signal. The exclusions, based on clinical rationales, prevent unfair distortion of performance results. 1) Colonoscopies for patients who lack continuous enrollment in Medicare FFS Parts A and B in the 1 month after the procedure. Rationale: We exclude these patients to ensure full data availability for outcome assessment. 2) Colonoscopies that occur concurrently with high-risk upper gastrointestinal (GI) endoscopy procedures. Rationale: Patients undergoing concurrent high-risk upper GI endoscopy procedures, such as upper GI endoscopy procedures for the control of bleeding or treatment of esophageal varices, are often unwell and have a higher risk profile than typical colonoscopy patients. Therefore these patients have a disproportionally higher risk for the outcome. 3) Colonoscopies for patients with a history of inflammatory bowel disease (IBD). Rationale: We exclude these patients because: -IBD is a chronic condition; patients with IBD undergo colonoscopy for both surveillance due to increased cancer risk and for evaluation of acute symptoms. IBD is likely to be coded as the primary diagnosis prompting the procedure irrespective of whether the patients are undergoing a screening procedure or a diagnostic procedure in the setting of an acute exacerbation of IBD. Therefore, we may not be able to adequately risk adjust for these patients as we cannot identify relatively well versus acutely unwell patients among visits coded as IBD. -Our aim is to capture hospital visits which reflect the quality of care. Admissions for acutely ill

2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy

IBD patients who are evaluated with an outpatient colonoscopy and are subsequently admitted for medical treatment of an IBD flare do not reflect the quality of the colonoscopy. In our 2010 Medicare 20% FFS Full Development Sample (see Measure Testing Form Section 1.2 and 1.7 for full description of the dataset), more than one third of IBD patients admitted to the hospital with colonoscopy had a discharge diagnosis of IBD, indicating their admission was for medical treatment of their IBD. We therefore excluded this group so that providers who treat a disproportionate number of IBD patients will not be disadvantaged in the measure.

4) Colonoscopies for patients with a history of diverticulitis.

Rationale: We exclude these patients because:

-It is unclear what the health status is of patients coded with a history of diverticulitis, making it difficult to fully risk adjust for patients' health. Colonoscopies performed on patients with a history of diverticulitis are likely to be coded as diverticulitis as the primary diagnosis irrespective of whether the patients are undergoing a screening procedure or a diagnostic procedure (i.e., are acutely unwell with active disease). Furthermore, the codes for diverticulitis and diverticulosis may not be consistently used; patients with diverticulosis may be erroneously coded as diverticulitis. Therefore, we may not be able to adequately risk adjust as we cannot identify relatively well versus acutely unwell patients among visits coded as diverticulitis.

-Admissions for acutely ill patients with a history of diverticulitis who are evaluated with an outpatient colonoscopy and are subsequently admitted for medical treatment of do not reflect the quality of the colonoscopy. In our 2010 Medicare 20% FFS Full Development Sample (see Measure Testing Form Section 1.2 and 1.7 for full description of the dataset) more than one quarter of patients with a history of diverticulitis admitted to the hospital post colonoscopy had a discharge diagnosis of diverticulitis, indicating they were admitted for medical treatment of the condition. These admissions are likely unrelated to the quality of the colonoscopy. We therefore excluded this group so that providers who treat a disproportionate number of diverticulitis patients will not be disadvantaged in the measure.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Ambulatory Care : Ambulatory Surgery Center (ASC), Ambulatory Care : Clinician Office/Clinic, Other

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: The Centers for Medicare & Medicaid Services (CMS)

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-14; N-4**; 1b. Performance Gap: **H-7**; **M-11**; **L-0**; **I-0;** 1c. Impact: **H-12**; **M-6**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee noted that colonoscopy is the most common procedure performed in the outpatient or ASC setting.
- The Committee noted that there is significant variation from 8.3 to 20.1 per 1,000 beneficiaries

2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy

and agreed there is opportunity for improvement.

- The Committee agreed with the evidence in support of the rationale. They noted that most patients return to the hospital with potentially preventable complications (e.g., abdominal pain, bleeding, perforation, aspiration because of the anesthesia).
    - The developer further stressed there is rationale suggesting that providers in the outpatient setting are unaware of these events, citing a study which suggested that in about 80 percent of readmissions the provider is unaware of any complication. The developer suggested that there are legal limitations around follow-up care by ambulatory surgical centers.

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-1**; **M-17**; **L-0**; **I-0** 2b. Validity: **H-0**; **M-18**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee noted, that the interclass correlation coefficient (ICC) provided by the developer (0.335, interpreted as "fair agreement") was comparable to other outcome measures of quality. The developer noted, that the split sample which was used to conduct reliability testing contained 2-years of data, rather than 3-years (as the measure is specified), as such when extrapolating the data to 3-years the ICC increased to 0.43, interpreted as "moderate agreement".
- The Committee agreed the systematic face validity testing provided by the developer demonstrated the TEP agreed with overall validity of the measure as specified, concluding the measure could be used to distinguish quality.
- The Committee noted that the model has is able to discriminate between high and low performers, with a C-statistic of 0.67, when the development sample was compared to the validation sample.
- The Committee questioned why polypectomy was included in the risk adjustment model. The developers explained that polypectomy was included in the model because while polypectomy is a risk factor for GI bleeding, removal is discretionary the developers did not want to penalize providers who excised polyps during colonoscopy.
    - Committee members warned that was possible then that the polypectomy could cause the readmission and that the model might adjust that away. The Committee further recommended that this measure should be compared to another measure of polypectomy rates or adenoma detection rates.
- The Committee questioned the 7-day time window and asked the developer to provide insight as to why they chose that time period. The developer explained that while there is a range of side effects that could occur after a colonoscopy, the literature suggests that a majority of complications or adverse events occur within 7 days. The developers empirically tested this looking at the number of hospital visit per each day post procedure, and noticed the number of visits levels off to after about 7 days.
- The Committee questioned whether there was any other measure in use that would be able to

2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy
externally validate this quality measure (i.e., looking at volume or detection of abnormalities). The developer noted that finding other measures to validate against was difficult as there are not many outcome measures for ASC. • Some Committee Members noted similar issues with Measure 2496: Standardized Readmission Ratio (SRR) for dialysis facilities, where the skill of the provider is not easily distinguished from the facility, while other Committee members noted the measure was well specified and precise in determining a linkage between the physician doing the colonoscopy, the procedure, and the outcome. o The developer explained that the reason the measure is specified at the facility level is because the measure is dependent on the number of cases in order to get a reliable estimate, but also that there is a component of facility care that the developers think contributes to the outcome such as anesthesia care, post-op care, and discharge.
3. Feasibility: H-14; M-4; 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: • All data elements are in defined fields in electronic claims and that these data are routinely collected as part of the billing process.
4. Use and Usability: H-1; M-16; L-1; I-0 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The Committee noted that the measure developers acknowledge that there are many situations where a component of primary care or first contact care can happen someplace besides a primary care clinician's practice, such as an ED, and cautioned against potential unintended consequences of using this measure as a metric for ED visits. • The Committee warned against potential misattribution of risk if the ASC is one where a single provider in a small group is driving poor outcomes; there is a potential for the ASC to become an outlier. • The developers noted that CMS is considering use of this measure in public reporting in the Hospital Outpatient Quality Reporting Program and/or Ambulatory Surgery Center Quality Reporting Program. During workgroup discussion of this measure the Committee cautioned that overlap of this measure within two programs could cause “double jeopardy.”
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-17**; **N-1**
6. Member and Public Comment • NQF received four comments on Measure 2539. Commenters were supportive of the increased focus on the quality of colonoscopy and the development of this measure concept.

2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy
• Concern was raised that the planned readmission exclusions and risk adjustment variables included in this measure are not sufficient for the clinical condition and may result in reluctance of GI Endoscopist's to scope patients with significant comorbidities. • One commenter argued that the intraclass correlation coefficient of 0.355 suggested a low level of reliability.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

Measures Where Consensus Is Not Yet Reached

0327 Risk-Adjusted Average Length of Inpatient Hospital Stay
Submission | Specifications
Description: The average (geometric mean) hospital length of stay in days relative to the expected geometric mean length of stay of any well defined population of inpatients over a specified time interval **Numerator Statement**: Risk-adjusted in-hospital days average for any defined and observable inpatient population in the form of days above the average that would be expected purely based on patient risk factors of the defined patient population **Denominator Statement**: Patients admitted to a hospital. Patient population can be aggregated as any grouping of patients (e.g., by hospital, physician, diagnosis code, procedure, DRG, etc.) **Exclusions**: The only exclusions are those limited by the parameters set for a specific population and are not limited by diagnosis **Adjustment/Stratification**: **Level of Analysis:** Facility **Setting of Care:** Hospital/Acute Care Facility, Behavioral Health/Psychiatric : Inpatient, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Long Term Acute Care Hospital, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility **Type of Measure**: Outcome **Data Source**: Administrative claims **Measure Steward**: Premier, Inc.
STANDING COMMITTEE MEETING [05/05/2014-05/06/2014] **1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>** (1a. Evidence, 1b. Performance Gap, 1c. High Impact) 1a. Evidence: **Y-23; N-1**; 1b. Performance Gap: **H-10**; **M-11**; **L-3**; **I-0;** 1c. Impact: **H-12**; **M-10**; **L-1**; **I-0** <u>Rationale</u>: • The Committee agreed with the developer's assessment that length of stay serves as a proxy for resource usage, reflecting how efficiently a hospital allocates staff time, space, equipment, and additional considerations per patient. • The Committee noted a performance gap and large variations across hospitals.

0327 Risk-Adjusted Average Length of Inpatient Hospital Stay
• The Committee agreed that length of stay represents a high priority area and correlates with high cost
2. Scientific Acceptability of Measure Properties: <u>The measure failed to reach consensus on the Scientific Acceptability criteria</u> (2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity) 2a. Reliability: **H-1**; **M-11**; **L-6**; **I-6** 2b. Validity: **H-3**; **M-16**; **L-4**; **I-1** <u>Rationale</u>: • Some members expressed concern that there was limited testing information provided by the developer, such as R squared values and c-statistics. • The Committee also noted a gap in data and references to correlate the reliability statistic provided by the developer. This limited information made the assessment of validity and reliability testing challenging for the Committee. • The Committee noted that the risk adjustment model includes factors related to socioeconomic status. Members expressed concern that this is not consistent with current NQF guidance. It was noted that the guidance in question was updated after this measure's initial endorsement in May 2008. Some agreed that adjustment for sociodemographic factors was conceptually appropriate for this measure and that there could be an adequate rationale for departing from NQF's guidance in this instance. • Committee members noted that longer hospital stays might be indicated, and that no data was provided to support the cut off of 100 days. The developer explained that hospital stays of more than 100 days represents less than 0.5 percent of the population.
3. Feasibility: H-22; M-2; L-0; I-0 *(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified 3d. Data collection strategy can be implemented)* <u>Rationale</u>: • Committee members agreed that the measure is feasible, given its use of administrative claims data that is routinely collected as a part of care delivery.
4. Use and Usability: H-1; M-14; L-6; I-2 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* <u>Rationale</u>: • To date, this measure has been used primarily for quality improvement purposes, and it is not currently used in public reporting. The developer noted that CMS and Premier have had discussions about how the measure may be publicly reported; however, there are currently no definite plans to do so.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-10**; **N-10**

0327 Risk-Adjusted Average Length of Inpatient Hospital Stay
6. Member and Public Comment • NQF received several comments on Measure 0327, a measure where the Committee has not yet reached consensus. Commenters noted that the measure as specified could be applied to inpatient rehabilitation facilities (IRFs), which the commenters argued should be excluded from this measure due to the large variation in length of stay at these facilities. In addition, commenters suggested that there should be a method to adjust for outliers. • Several commenters argued that Measure 0327 should be considered an efficiency measure rather than a true quality measure, and that it should be paired with quality measures to avoid unintended consequences such as reduction of length of stay at the expense of sufficient and appropriate care. • Some commenters also suggested that the measure has limited usability given its lack of specificity, and that the measure should enable providers to "drill down" to assess length of stay by diagnosis-related group.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2496 Standardized Readmission Ratio (SRR) for dialysis facilities
Submission | Specifications
Description: The Standardized Readmission Ratio (SRR) is defined to be the ratio of the number of index discharges from acute care hospitals that resulted in an unplanned readmission to an acute care hospital within 30 days of discharge for Medicare-covered dialysis patients treated at a particular dialysis facility to the number of readmissions that would be expected given the discharging hospitals and the characteristics of the patients as well as the national norm for dialysis facilities. Note that in this document, "hospital" always refers to acute care hospital. **Numerator Statement**: Each facility's observed number of hospital discharges that are followed by an unplanned hospital readmission within 30 days of discharge **Denominator Statement**: The expected number of unplanned readmissions in each facility, which is derived from a model that accounts for patient characteristics and discharging acute care hospitals. **Exclusions**: Hospital discharges that: • Are not live discharges • Result in a patient dying within 30 days with no readmission • Are against medical advice • Include a primary diagnosis for cancer, mental health or rehabilitation • Occur after a patient's 12th admission in the calendar year • Are from a PPS-exempt cancer hospital • Result in a transfer to another hospital on the same day **Adjustment/Stratification**:

2496 Standardized Readmission Ratio (SRR) for dialysis facilities

Level of Analysis: Facility

Setting of Care: Dialysis Facility

Type of Measure: Outcome

Data Source: Administrative claims

Measure Steward: Centers for Medicare and Medicaid Services

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-17; N-6**; 1b. Performance Gap: **H-15**; **M-8**; **L-0**; **I-0;** 1c. Impact: **H-20**; **M-3**; **L-0**; **I-0**

<u>Rationale</u>:

- There was general agreement that this is a high impact area of measurement and there is opportunity for improvement, with the overall readmissions rate at approximately 30 percent and the readmissions rate for hemodialysis patients at approximately 36 percent.
- The Committee agreed that certain post-discharge assessments and changes in treatment at the dialysis facility may be associated with a reduced risk of readmissions.
- One committee member was concerned that the cause of the reduced risk of admissions had more to do with interventions by nephrologists, rather than the dialysis unit. Further, the member noted that NQF guidance regarding evidence for outcome measures was not strong enough, suggesting that the quality, quantity, and consistency of the evidence should be evaluated even for outcome measures.

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-5**; **M-17**; **L-1**; **I-0** 2b. Validity: **H-1**; **M-16**; **L-7**; **I-0**

<u>Rationale</u>:

- The Standing Committee discussed a number of threats to validity of the measure – mainly focusing on whether the dialysis unit was the accountable entity for 30-day readmissions back to acute care facilities.
    - One member argued that there are limited interventions a dialysis unit can implement that would influence this particular measure. This member noted that there are limited structures that allow the medical director or the governing body of the dialysis unit to compel nephrologists to see patients immediately after discharge from an acute care facility.
    - Other Committee members noted that while the locus of control may not be solely the dialysis facility, this measure and improvement efforts tied to it may be the type of impetus needed to improve care for this population. These members also noted that with patients spending nine to 12 hours in these units during the week, more could be done to improve care for these patients.

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3. Feasibility: H-11; M-9; L-4; 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 required data elements are routinely generated and used during care delivery and all data elements are in defined fields in electronic claims

4. Use and Usability: H-3; M-11; L-10; I-0

(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)

Rationale:

- Some members were concerned that the threats to validity would cause unintended consequences with the use of this measure in public reporting or accountability applications; however, there was limited evidence of unintended consequences identified.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-8**; **N-12**

6. Member and Public Comment

- NQF received 10 post-evaluation comments regarding this measure. There was one supportive comment, arguing that this measure addresses an important high priority for measurement with sufficient room for improvement in the care processes of dialysis units. The remaining comments raised concern about the measure specifications, including the numerator specifications, denominator specifications, attribution, temporal logic, risk adjustment, testing, and intended use.

Numerator Specifications

- Commenters were concerned that the numerator definition relies on an accurate determination of planned admissions using codes from a non-ESRD population. Commenters encouraged validation of these codes in the ESRD population through examination of patient-level data from the CMS dry run.
- Commenters raised strong concern that the numerator of acute admissions does not consider ESRD-specific patient management – noting that this list of admissions should be tailored to include nephrology–related treatment. Commenters requested clarification on whether PD catheter placement or omentectomy, vascular access creation, or transfusion for a transfusion dependent patient fall is included in the measure.

Denominator Specifications

- Specifically, a commenter disagreed that the number of discharges should not be the determinant of the denominator, but rather the number of readmissions should be based on the total number of patients treated in a facility. Further, the commenter argued that the current measure is vulnerable to being skewed by the effect of one or two complex patients requiring frequent hospitalization.

Attribution

- Many commenters challenged the notion that dialysis facilities have the ability to affect

2496 Standardized Readmission Ratio (SRR) for dialysis facilities

readmissions. Commenters explained that dialysis facilities often do not receive any direct communication from the discharging hospital or facility for their patients, and are not supported to have coordinated presence in multiple hospitals. One commenter noted that a patient might be readmitted before ever being seen in the dialysis unit. This commenter noted that these readmissions are not actionable by the dialysis facility and should not be included in the measure. Further, commenters noted a lack of evidence showing that changes in a dialysis unit are the factors driving performance improvement.

- Additionally, a commenter noted that the majority of dialysis facilities do not have the resources for additional personnel, such as case managers, to improve care coordination between dialysis facilities and other health care providers. This commenter argued that dialysis facilities have a role in reducing all-cause readmissions; however, these facilities may not be the locus of control to manage the coordination required.
- Further, the commenter discussed that a dialysis unit has no control over a hospital's decision to re-admit a patient. The hospital physician decides whether or not to admit a patient, and many of these admissions have nothing to do with the nephrological issues being addressed by the dialysis facility and should also be excluded from the measure.
- Commenters also requested clarification on the frequency of admissions that occur prior to the first post-acute visit to a dialysis facility.

Exclusions

- Commenters requested clarification on how specific patient cohorts are handled in the measure. Additionally, a commenter requested clarification on how readmissions as a result of unsuccessful kidney transplants are handled in the 6 months following the transplant. Another commenter requested clarification on the rationale for excluding index hospitalizations after the patient's 12th admission in the calendar year. Further, this commenter requested clarification on why patients without complete claims histories and those who are readmitted within the 1-3 days after discharge are not excluded from the measure.

Risk Adjustment

- Commenters noted concern with the validity of the two-stage random effects risk-adjustment model. In particular, they requested clarification on how the measure is impacted by communities where there is only one major hospital and/or one major dialysis facility versus communities where there is many of one or both. The Commenters also noted that the risk adjustment model should reduce the number of variables to those that are clinically relevant.
- Further, another commenter noted that other comorbidities should be included in the risk adjustment model, including sickle cell trait, angiodysplasia, myelodysplasia, diverticular bleeding, and asthma. Additionally, the commenter suggested adjusting for nursing home status in the risk adjustment model. Commenters also requested clarification on whether "poisoning by nonmedical substances" includes ongoing/chronic alcohol or drug abuse and not just acute events.

Reliability and validity testing

- Commenters noted that the testing results demonstrating correlations between hospitalization and re-hospitalization do not enhance confidence in the measure. The correlations with access and *urea reduction ratio (*URR) are statistically significant but of very low magnitude, and the correlation with the *standardized mortality ratio* (SMR) also has a low magnitude. Another commenter noted that the area under the curve for the for the receiver operating characteristic (ROC) curve (C-statistic) for the multivariable model of <0.65 is quite poor and suggests that the model is inadequate.

2496 Standardized Readmission Ratio (SRR) for dialysis facilities
• Commenters requested clarification on the minimum sample size required to provide a statistically stable value for the measure. They expressed concern that many individual dialysis facilities may be too small with wide confidence intervals, limiting the statistical validity of the results. Intended use in the specific program (QIP) and its appropriateness • Commenters expressed concern regarding the appropriateness of the intended use of this measure for the CMS ESRD *Quality Incentive Program (*QIP). Commenters argued that the measure should focus only on admissions that are actionable for dialysis facilities, making stratification by primary diagnosis for readmission important.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2512 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (LTCHs)
Submission | Specifications
Description: This measure estimates the risk-standardized rate of unplanned, all-cause readmissions for patients (Medicare fee-for-service [FFS] beneficiaries) discharged from a Long-Term Care Hospital (LTCH) who were readmitted to a short-stay acute-care hospital or a Long-Term Care Hospital (LTCH), within 30 days of an LTCH discharge. The measure is based on data for 24 months of LTCH discharges to non-hospital post-acute levels of care or to the community. A risk-adjusted readmission rate for each facility is calculated as follows: Step 1: Calculate the standardized risk ratio of the predicted number of readmissions at the facility divided by the expected number of readmissions for the same patients if treated at the average facility. The magnitude of the risk-standardized ratio is the indicator of a facility's effects on readmission rates. Step 2: The standardized risk ratio is then multiplied by the mean rate of readmission in the population (i.e., all Medicare FFS patients included in the measure) to generate the facility-level standardized readmission rate. For this measure, readmissions that are usually for planned procedures are excluded. Please refer to Appendix Tables A1-A5 for a list of planned procedures. The measure specifications are designed to harmonize with CMS' hospital-wide readmission (HWR) measure to a great extent. The HWR (NQF #1789) estimates the hospital-level, risk-standardized rate of unplanned, all-cause readmissions within 30 days of a hospital discharge, similar to this LTCH readmission measure. **Numerator Statement**: The numerator is mathematically related to the number of patients in the target population who have the event of an unplanned readmission in the 30- day post-discharge window. The measure does not have a simple form for the numerator and denominator—that is, the risk adjustment method used does not make the observed number of readmissions the numerator and a predicted number the denominator. Instead, the numerator is the risk-adjusted estimate of the number of unplanned readmissions that occurred within 30 days from discharge. This estimate includes risk

2512 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (LTCHs)

adjustment for patient characteristics and a statistical estimate of the facility effect beyond patient mix.

Denominator Statement: The denominator is computed with the same model used for the numerator. It is the model developed using all non-excluded LTCH stays in the national data. For a particular facility the model is applied to the patient population, but the facility effect term is 0. In effect, it is the number of readmissions that would be expected for that patient population at the average LTCH. The measure includes all the LTCH stays in the measurement period that are observed in national Medicare FFS data and do not fall into an excluded category.

Exclusions: The measure excludes some LTCH patient stays; some of these exclusions result from data limitations.

The following are the measure's denominator exclusions, including the rationale for exclusion:

1.LTCH patients who died during the LTCH stay.

Rationale: A post-discharge readmission measure is not relevant for patients who died during their LTCH stay.

2.LTCH patients less than 18 years old.

Rationale: LTCH patients under 18 years old are not included in the target population for this measure. Pediatric patients are relatively few and may have different patterns of care from adults.

3.LTCH patients who were transferred at the end of a stay to another LTCH or short-term acute-care hospital.

Rationale: Patients who were transferred to another LTCH or short-term acute-care hospital are excluded from this measure because the transfer suggests that either their LTCH treatment has not been completed or that their condition worsened, requiring a transfer back to the acute care setting. The intent of the measure is to follow patients deemed well enough to be discharged to a less intensive care setting (i.e., discharged to less intense levels of care or to the community).

4.Patients who were not continuously enrolled in Part A FFS Medicare for the 12 months prior to the LTCH stay admission date, and at least 30 days after LTCH stay discharge date.

Rationale: The adjustment for certain comorbid conditions in the measure requires information on acute inpatient bills for 1 year prior to the LTCH admission, and readmissions must be observable in the observation window following discharge. Patients without Part A coverage or who are enrolled in Medicare Advantage plans will not have complete inpatient claims in the system.

5.Patients who did not have a short-term acute-care stay within 30 days prior to an LTCH stay admission date.

Rationale: This measure requires information from the prior short-term acute-care stay in the elements used for risk adjustment.

6.LTCH patients discharged against medical advice (AMA).

Rationale: Patients discharged AMA are excluded because these patients have not completed their full course of treatment in the opinion of the facility.

7.LTCH patients for whom the prior short-term acute-care stay was for nonsurgical treatment of cancer.

Rationale: Consistent with the HWR Measure, patients for whom the prior short-term acute-care stay was for nonsurgical treatment of cancer are excluded because these patients were identified as following a

2512 All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (LTCHs)

very different trajectory after discharge, with a particularly high mortality rate.

8.LTCH stays with data that are problematic (e.g., anomalous records for hospital stays that overlap wholly or in part or are otherwise erroneous or contradictory).

Rationale: This measure requires accurate information from the LTCH stay and prior short-term acute-care stays in the elements used for risk adjustment. No-pay LTCH stays involving exhaustion of Part A benefits are also excluded.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Post Acute/Long Term Care Facility : Long Term Acute Care Hospital

Type of Measure: Outcome

Data Source: Administrative claims, Other

Measure Steward: Centers for Medicare & Medicaid Services (CMS)

STANDING COMMITTEE MEETING [05/05/2014-05/06/2014]

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

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

1a. Evidence: **Y-20; N-4**; 1b. Performance Gap: **H-14**; **M-10**; **L-0**; **I-0;** 1c. Impact: **H-12**; **M-12**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee noted that the evidence provided by the developer in support of the rationale was based on Hospital readmissions as opposed to Long Term Care Facility readmissions. The developer explained that the evidence base around readmissions after post-acute care is very limited, noting that this measure is a first step in providing insight into how care transitions occur for this patient population.
- The Committee agreed that the measure addresses a high-priority issue, noting that data provided by the developer showed the unadjusted readmission rate was 26 percent for patients readmitted from a Long-Term Care Hospital (LTCH).

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-4**; **M-19**; **L-1**; **I-0** 2b. Validity: **H-0**; **M-17**; **L-7**; **I-0**

<u>Rationale</u>:

- The Committee raised concerns about why the measure is specified to include readmissions to both short-stay acute-care hospitals and LTCHs. There was concern that these are two different patient populations and not conceptually aligned.
- The Committee questioned whether the appropriate time frame for this patient population was 30-days. As one Committee Member noted, LTCH patients are typically sicker and may have fewer short term episodes.
- The developers provided split sample reliability testing, which involved calculating the level of agreement between scores calculated for different samples from the same facilities. Agreement

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was evaluated using an intraclass correlation coefficient (ICC), and the developers calculated an ICC of 0.57, indicating a modest level of consistency in the standardized risk ratios assigned to facilities. ○ It was noted during workgroup discussion that the developer cited their Technical Expert Panel (TEP)'s agreement on the measurement approach as a demonstration of face validity; however, no description or systematic account of the TEP's assessment was provided to the Committee. The Committee agreed that the validity of the measure construct was moderate based on prior validity testing for similar readmission measures. • The Committee noted that observation stays to an ED would not be counted in this measure. • Committee members questioned whether patients who were discharged to Hospice would be counted in this measure. The developer confirmed that hospice patients would be captured, as the measure logic does not distinguish between final care settings. The developer noted that patients who are in Hospice are less likely to be readmitted and should not have a negative effect on performance scores.
3. Feasibility: H-13; M-10; 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: • Committee members agreed that in future iterations of the measure, it would be desirable to provide the outcome following discharge from a LTCH facility, as doing so would provide more information for facilities to use in quality improvement activities. • The Committee agreed that all data elements are in defined fields in electronic claims and that these data are routinely collected as part of the billing process.
4. Use and Usability: H-0; M-9; L-10; I-5 *(Meaningful, understandable, and useful to the intended audiences for 4a. Public Reporting/Accountability and 4b. Quality Improvement)* Rationale: • The Committee identified several potential unintended consequences that should be monitored as the measure is implemented: ○ LTCHs may redirect certain patients with higher acuity or greater complexity that may be more likely to have a subsequent readmission post LTCH discharge in order to avoid penalties. ○ Another potential unintended consequence is that LTCHs could increase the rate at which they transfer patients back to the acute care setting in order to exclude these transfers from the measure denominator. ○ The Committee noted that a readmission from an LTCH has potential for "double jeopardy" due to the readmission being counted as part of both the Inpatient Quality Reporting Program and the LTCH Quality Reporting Program. The developer

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acknowledged the potential for this to occur; however, the developer considered this to be an unusual occurrence. • CMS is developing this readmission measure in order to publicly report it as part of the Long Term Care Hospital Quality Reporting Program. The developers noted that CMS is working to establish procedures for public reporting, providing the opportunity for LTCHs to review their data before it is made public.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-10**; **N-10**
6. Member and Public Comment • NQF received five comments on Measure 2512. Several commenters were supportive of the measure, noting that the measure addresses an important care transition for a high-priority patient population. One commenter noted that the measure may be best suited for measurement of accountable care delivery systems. • Another commenter suggested that the measure should take into consideration the unique patient population in a long term care hospital and not co-mingle the patient population of short-stay acute-care hospitals.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals