

Patient Safety Standing Committee – Measure Evaluation Web Meeting

The National Quality Forum (NQF) convened the Patient Safety Standing Committee for a web meeting on <u>February 9, 2023</u> to evaluate five measures for the fall 2022 cycle.

Welcome, Review of Meeting Objectives, Introductions, and Overview of Evaluation and Voting Process

Leah Chambers, NQF director, welcomed the Standing Committee and participants to the web meeting. After the co-chairs provided welcoming remarks, Dr. Matthew Pickering, NQF managing director, informed the Standing Committee that the Centers for Medicare & Medicaid Services (CMS) contract to serve as the consensus-based entity is set to end on March 26 of this year. CMS recently completed a competitive process to award the next phase of work and announced its award decision: NQF was not awarded the contract, so its work will conclude on March 26, 2023. Dr. Pickering further mentioned that NQF is working with CMS and the successor contractor in the weeks ahead to make a smooth transition, which will include further communication with this Standing Committee and other NQF Committee volunteers. However, Dr. Pickering underscored that this does not change the Standing Committee to review the fall 2022 measures.

NQF staff reviewed the meeting objectives. Following this review, the Standing Committee members each introduced themselves and disclosed any conflicts of interest. No Standing Committee member disclosed a conflict of interest. Additionally, Erin Buchanan, NQF senior manager, reviewed the Consensus Development Process (CDP) and the measure evaluation criteria.

Some Standing Committee members were unable to attend the entire meeting due to early departures and late arrivals. The vote totals reflect members present and eligible to vote.

A quorum of 14 was met and maintained during the review of NQF #3025, NQF #3686, and NQF #3498e. However, quorum was lost during the discussion of feasibility for NQF #3688. Therefore, the Standing Committee discussed all remaining criteria for NQF #3688 and voted after the meeting using an online voting tool. The Standing Committee did not have quorum for the entirety of the discussion of NQF #3713e and voted on all criteria after the meeting using an online voting tool. Voting results are provided below.

Measure Evaluation

During the meeting, the Patient Safety Standing Committee evaluated five measures (one maintenance and four new) for endorsement consideration. For the Patient Safety measures under review, none of them were evaluated by the Scientific Methods Panel (SMP).

A measure is recommended for endorsement by the Standing Committee when greater than 60 percent of eligible voting members select a passing vote option (i.e., Pass, High and Moderate, or Yes) on all must-pass criteria and overall suitability for endorsement. A measure is not recommended for

endorsement when less than 40 percent of voting members select a passing vote option on any mustpass criterion or overall suitability for endorsement. If a measure does not pass on a must-pass criterion, voting during the measure evaluation meeting will cease. The Standing Committee will not re-vote on the measures during the post-comment meeting unless the Standing Committee decides to reconsider the measures based on submitted comments or a formal reconsideration request from the developer. The Standing Committee has not reached consensus on the measure if between 40 and 60 percent of eligible voting members select a passing vote option on any must-pass criterion or overall suitability for endorsement. The Standing Committee will re-vote on criteria for which it did not reach consensus and potentially on overall suitability for endorsement during the post-comment web meeting. The Standing Committee was not able to discuss related and competing measures for NQF #3025 and NQF #3688 during the meeting and this discussion will occur during the post-comment meeting.

Voting Legend:

- Evidence (Outcome Measures) and Use: Pass/No Pass
- Accepting the SMP Rating and Overall Suitability for Endorsement: Yes/No
- All Other Criterion: H High; M Moderate; L Low; I Insufficient; NA Not Applicable
- Maintenance Criteria for Which the Standing Committee Decided Additional Discussion/Vote Was Not Needed (Evidence, Reliability, Validity only): Accepted Previous Evaluation

NQF #3025 Ambulatory Breast Procedure Surgical Site Infection Outcome Measure (Centers for Disease Control and Prevention [CDC])

Description: Breast procedures, as specified by the operative procedure codes that comprise the breast procedure category of the National Healthcare Safety Network (NHSN) Outpatient Procedure Component Protocol, are performed at ambulatory surgery centers; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Outpatient Services; **Data Source**: Electronic Health Records: Electronic Health Records, Other, Paper Medical Records, Electronic Health Records, Electronic Health Data, Other (specify)

Measure Steward/Developer Representatives at the Meeting

• Dr. Andrea Benin, Centers for Disease Control and Prevention (CDC)

Standing Committee Votes

- Evidence: Total Votes-14; Pass-14; No Pass-0 (14/14 100%, Pass)
- Performance Gap: Total Votes-15; H-0; M-6; L-8; I-1 (6/15 40%, Consensus Not Reached)
- Reliability: Total Votes-15; H-1; M-13; L-0; I-1 (14/15 93.3%, Pass)
- Validity: Total Votes-15; H-0; M-10; L-4; I-1 (10/15 66.7%, Pass)
- Feasibility: Total Votes-15; H-0; M-11; L-4; I-0 (11/15 73.3%, Pass)
- Use: Total Votes-14; Pass-14; No Pass-0 (14/14 100%, Pass)
- Usability: Total Votes-14; H-0; M-7; L-6; I-1 (7/14 50%, Consensus Not Reached)
- Standing Committee Recommendation for Endorsement: Vote Not Taken

The Standing Committee did not vote on the recommendation for endorsement at the meeting because it did not reach consensus on performance gap—a must-pass criterion.

The Standing Committee will re-vote on the measure during the post-comment web meeting. This

facility-level measure was originally endorsed in 2017. It is used in public reporting, public health/disease surveillance, quality improvement with benchmarking, and internal quality improvement within 284 ambulatory surgery centers (ASCs) in the National Healthcare Safety Network (NHSN), Colorado Department of Public Health, and Environment Patient Safety Program.

During the evidence discussion, the Standing Committee noted new citations supporting the same underlying evidence from the initial measure review in 2017, which suggests that actions can be taken to prevent infections. Specifically, infection prevention protocols laid out in the developer's logic model have been shown to improve infection rates in the inpatient setting. A Standing Committee member raised the following concern: This measure could encourage overuse of prophylactic antibiotics. Several Standing Committee members weighed in, noting no concern that this measure would encourage antibiotic overuse due to the existence of facility protocols for the prevention of antibiotic overuse. One Standing Committee member raised concern about outpatient settings being different than inpatient settings; however, they conceded that infection control practices have been shown to reduce infections and should apply regardless of where the procedure occurs. Ultimately, the Standing Committee passed the measure on evidence.

The Standing Committee noted that the developer did not provide updated data for performance gap. The previous data, from 2010 to 2013, showed an overall unadjusted surgical site infection (SSI) rate of 0.25 percent. During the meeting, the developer provided a verbal update from the past four years, which showed a consistent 0.26 percent unadjusted SSI rate. Additionally, those data showed variability among facilities with a standardized infection ratio (SIR) ranging from zero to 6.9. During their discussion, some Standing Committee members expressed concern that the rate appeared to be low and that the volume of procedures in some facilities was also low. The Standing Committee asked the developer to explain how they handle facilities with low procedure volumes. The developer explained that SIR is not calculated when the predicted number of infections is less than one and conceded that this is a limitation for facilities with small procedure numbers. The Standing Committee then asked for clarification from NQF staff on the difference between a low and insufficient rating. NQF staff clarified that an insufficient rating occurs when there is insufficient information for the reviewer to assign a rating, whereas a low rating is used if there is sufficient information but a minimal gap or opportunity for improvement. Moving to a vote, the Standing Committee did not reach consensus on performance gap.

During the discussion on reliability, the Standing Committee observed that the reliability testing was consistent with the initial endorsed submission. A Standing Committee member had a concern about clinical variability, specifically regarding capturing all patient infections due to variability in clinical judgement and practice. The developer pointed out that the measure uses standardized case definitions and follows NHSN surveillance guidelines, which allow for reproducibility across different facilities. Having no further concerns or questions on reliability, the Standing Committee passed the measure on reliability.

The Standing Committee noted that new validity testing was not completed after the initial endorsement. The validity discussion centered on exclusions due to low procedure volume and risk adjustment. A Standing Committee member questioned whether this measure can adequately measure and produce a meaningful difference in performance because out of the 95 total facilities reporting in 2021, only 16 met the minimum criteria needed to calculate an SIR. Another Standing Committee member asked for clarification about the method of identifying the infection, and the developer confirmed that infections are identified through chart review. The developer further noted that the low volume of infections is expected for this procedure and that they are unaware of any penalties for this

measure. The developer reiterated that the NHSN provided both a tool kit and detailed surveillance guidelines for infection identification. Lastly, another Standing Committee member noted that the developer used a statistical risk model with three risk factors (i.e., anesthesia, age, and body mass index [BMI] category), showing a good Z-statistic of 0.71. The Standing Committee member further noted that social risk factors were not available for consideration within the model. The Standing Committee did not raise any additional concerns or questions and passed the measure on validity.

During the discussion on feasibility, the Standing Committee noted that the data elements for this measure were found in the medical record and can be submitted electronically but do require some manual review. The Standing Committee acknowledged that manual chart review is challenging yet feasible. Moving to a vote, the Standing Committee passed the measure on feasibility.

Moving to the use criterion, the Standing Committee asked the developer for clarification about whether the measure is publicly reported. The developer clarified that the measure is used in five states, and each of those states chooses whether to publicly report that information. The Standing Committee did not have any additional questions and passed the measure on use.

In reviewing usability, the Standing Committee raised a concern: There were no data to show improvement trends, and given the measure is only used in five states, it is difficult to determine whether it is making a difference. Moving to a vote, the Standing Committee did not reach consensus on usability.

No pre-evaluation public comments were submitted. Because it did not reach consensus on performance gap or usability, the Standing Committee did not discuss related measures or vote on overall suitability for endorsement.

NQF #3686 CDC, National Healthcare Safety Network (NHSN) Hospital-Onset Bacteremia & Fungemia Outcome Measure (CDC)

Description: Risk-adjusted ratio of observed bacteremias and fungemias to predicted bacteremias and fungemias among patients previously admitted to acute care hospitals; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Inpatient/Hospital; **Data Source**: Electronic Health Records, Claims

Measure Steward/Developer Representatives at the Meeting

• Dr. Raymund Dantes, CDC

Standing Committee Votes

- Evidence: Total Votes-14; Pass-11; No Pass-3 (11/14 78.6%, Pass)
- Performance Gap: Total Votes-15; H-0; M-13; L-2; I-0 (13/15 86.7%, Pass)
- Reliability: Total Votes-15; M-14; L-1; I-0 (14/15 93.3%, Pass)
- Validity: Total Votes-15; M-15; L-0; I-0 (15/15 100%, Pass)
- Feasibility: Total Votes-15; H-7; M-8; L-0; I-0 (15/15 100%, Pass)
- Use: Total Votes-15; Pass-15; No Pass-0 (15/15 100%, Pass)
- Usability: Total Votes-14; H-5; M-9; L-0; I-0 (14/14 100%, Pass)
- Standing Committee Recommendation for Endorsement: Total Votes-15; Yes-15; No-0 (15/15 100%, Pass)

The Standing Committee recommended this measure for initial endorsement.

This facility-level measure was newly submitted for endorsement. It is not yet implemented in a quality or accountability program but is planned for use in the Hospital-Onset Bacteremia (HOB) (NHSN) module later this year.

During the discussion on evidence, the Standing Committee noted that the evidence shows infections associated with certain hospital populations, such as patients with central lines or who had recently undergone surgery. However, the Standing Committee noted missing evidence that indicated relationships between specific processes, interventions, structures, or staffing and how they could increase or decrease the rate of HOB. The Standing Committee noted that the logic model and framework laid out by the developer clearly outlined the hypothesized relationships between hospital infection prevention practices and the reduction of infections. The Standing Committee also discussed what the added value of this measure is when existing measures capture more specific outcomes and whether this measure is meant to replace the more specific measures. The developer clarified that this measure is much broader than existing healthcare-associated infection (HAI) measures and includes bloodstream infections that may be attributable to midline catheters, peripheral IVs, and other sources not routinely reported to NHSN yet still associated with inpatient mortality. The developer further noted that the measure would be of value because it would capture bloodstream infections, such as bacteremia and fungemia, not subject to current NHSH surveillance. The Standing Committee was satisfied with the developer's response and passed the measure on evidence.

Regarding performance gap, the Standing Committee noted that the developer found a low rate of infection and substantial variability between hospitals. The Standing Committee also noted disparities across social factors, race, and age. The developer clarified that the rate of blood stream infections in the submission consists of the overall number of HOB events out of admissions, which is then extrapolated to the United States (U.S.) population. The Standing Committee did not have any further questions or concerns and passed the measure on performance gap.

During the discussion on reliability, the Standing Committee noted that the developer conducted interrater reliability testing of the data elements and found agreement rates, ranging from 81.8 percent to 100 percent between expert reviewers with Kappa statistics of 0.54 to 1.0. The Standing Committee asked for clarification on the gold standard for inter-rater variability, and the developer clarified that variability is largely due to how infections are documented. Having no further questions, the Standing Committee passed the measure on reliability.

Regarding the validity of the data elements, the Standing Committee observed that the developer found 96 percent sensitivity and 83 percent specificity compared to the manual chart review. The Standing Committee further observed the developer's risk adjustment model that found minimal data on hospital events in small and large hospitals and further noted that there were no reflections of updating the risk adjustment with characteristics that would lower infection rates. The Standing Committee noted that the risk adjustment for the measure is not fully specified but acknowledged the efficient plan of capturing HAIs in hospital settings moving forward. With no additional questions, the Standing Committee passed the measure on validity.

In terms of feasibility, the Standing Committee noted that the electronic nature of the measure is meant to streamline the data collection process, as all data elements can be found in structured fields within an electronic health record (EHR). The Standing Committee asked the developer for details about the burden on hospitals to generate electronic fields for this measure. The developer stated that the data can be submitted via the Fast Interoperability Healthcare Resources (FHIR) Application Programming

Interface (API), which is now standard in many hospitals. The developer also noted that the measure's electronic, algorithmic, and data collection burden is minimal. Having no further questions, the Standing Committee passed the measure on feasibility.

During its discussion of the use criterion, the Standing Committee noted that the measure is not currently in use but is planned for use in the HOB NHSN module later in 2023. The Standing Committee praised the developer for their plans for the future use of this measure and passed the measure on this criterion.

Regarding usability, the Standing Committee noted that this measure is valuable, even though a low rate of events may present challenges in seeing improvements. The Standing Committee agreed that larger facilities have more opportunity for improvements. With no further concerns regarding usability, the Standing Committee voted to pass the measure on usability and overall suitability for endorsement.

No pre-evaluation public comments were submitted. The Standing Committee reviewed two related measures (NQF #0139 and NQF #1716) and agreed that the measures are harmonized to the extent possible.

NQF #3688 CDC, NHSN Healthcare Facility-Onset, Antibiotic-Treated Clostridiodes Difficile Infection Outcome Measure (CDC)

Description: Standardized infection ratio (SIR) based on fully electronic capture of Healthcare facilityonset, antibiotic-Treated Clostridiodes difficile Infection (HT-CDI) events among inpatients in the facility. **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Inpatient/Hospital; **Data Source**: Electronic Health Records

Measure Steward/Developer Representatives at the Meeting

• Dr. Kristina Betz, CDC

Standing Committee Votes

- Evidence: Total Votes-15; Pass-15; No Pass-0 (15/15 100%, Pass)
- Performance Gap: Total Votes-15; H-1; M-14; L-0; I-0 (15/15 100%, Pass)
- Reliability: Total Votes-15; H-2; M-13; L-0; I-0 (15/15 100%, Pass)
- Validity: Total Votes-14; H-1; M-13; L-0; I-0 (14/14 100%, Pass)
- Feasibility: Total Votes-14; H-5; M-9; L-0; I-0 (14/14 100%, Pass)
- Use: Total Votes-14; Pass-14; No Pass-0 (14/14 100%, Pass)
- Usability: Total Votes-14; H-3; M-10; L-1; I-0 (13/14 92.8%, Pass)
- Standing Committee Recommendation for Endorsement: Total Votes-14; Yes-14; No-0 (14/14 100%, Pass)

The Standing Committee recommended the measure for initial endorsement.

This facility-level measure was newly submitted for endorsement. This measure is not yet implemented in a quality or accountability program, but the CDC has planned for its use in the HT-CDI NHSN module later this year.

In terms of evidence, the Standing Committee noted that this measure was supported by the 2017

clinical guidelines for the management of CDI and notes that an expert review panel from the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA) graded evidence for control and the prevention of CDI. With no concerns about evidence, the Standing Committee passed the measure on this criterion.

During the discussion on performance gap, the Standing Committee noted that because this is a new measure, neither performance gap nor disparities data were available. However, data were provided from 2020. The developer noted that the national SIR was 0.518, with state-level estimates ranging from 0.13 to 0.82. The developer also noted that they provide quality improvement work in hospitals in 11 states, including the District of Columbia, and found disparities amongst different races. The Standing Committee asked for clarification on the validity and accuracy of the social determinants of health (SDOH) data in the database used by the developer. The developer clarified that the data originated from a 2018 emerging infections program study, and they planned to collect patient-level data in the future using the measure. The Standing Committee acknowledged that SDOH data are often challenging to collect due to missingness. The Standing Committee did not have any additional questions and voted to pass the measure on performance gap.

During the discussion on reliability, the developer conducted an inter-rater reliability assessment that focused on three electronic extraction data elements: date of admission, presence of a CDI test, and presence of five+ days of antimicrobial therapy. The developer found 84.3 percent of exact samples for the date of admission and positive kappa statistics with the CDI test and antimicrobial treatment from their health extraction data review from the observed data elements. The Standing Committee noted from the developer's conclusion that the electronic extraction of data elements can be reliably extracted and that the HT-CDI event determination can be reliably made. The developer clarified that potential inconsistencies regarding the date of admission are not an issue with this measure because it will be electronically abstracted. The developer also noted that they share the Standing Committee's concern regarding medical administration versus medical order because the CDI currently only requires documentation of medical orders into the FHIR API but not medical administration, which limits the consistency of electronically extracted data. The Standing Committee further discussed the potential for systematic bias towards specific groups that will cause unwarranted errors or issues in sizeable data populations. The Standing Committee concluded that in large data sets, there were no misclassifications of specific groups that would cause a systematic bias. Having concluded the discussion, the Standing Committee voted to pass the measure on reliability.

Regarding validity, the Standing Committee noted that the developer compared HT-CDI rates versus reference standard case definitions for sensitivity and specificity of the electronic HT-CDI versus electronic capture of CDI lab events. In addition, the developer reported high sensitivity and specificity. The Standing Committee found that the risk adjustment model was sufficient. Ultimately, the Standing Committee had no concerns about validity and passed the measure on this criterion.

Moving to feasibility, the Standing Committee noted that all the data elements are electronically available and had no concerns about feasibility. However, quorum was lost during the discussion on feasibility; therefore, the remaining votes for NQF #3688 took place offline. During offline voting, the Standing Committee passed the measure on feasibility.

The Standing Committee had no concerns with regard to the use and usability criteria and passed the measure on both during offline voting.

No pre-evaluation public comments were submitted. Because quorum was lost during the meeting, the Standing Committee did not discuss related measures. This discussion will take place during the post-

comment meeting. During offline voting, the Standing Committee passed the measure on overall suitability for endorsement.

NQF #3498e Hospital Harm-Pressure Injury (Centers for Medicare & Medicaid Services/American institutes for Research [CMS/AIR])

Description: This electronic clinical quality measure (eCQM) assesses the proportion of inpatient hospitalizations for patients ages 18 years and older at the start of the encounter who suffer the harm of developing a new stage 2, stage 3, stage 4, deep tissue, or unstageable pressure injury; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Inpatient/Hospital; **Data Source**: Electronic Health Records

Measure Steward/Developer Representatives at the Meeting

• Dr. Patrick Romano, UC Davis Health

Standing Committee Votes

- Evidence: Total Votes-14; Pass-14; No Pass-0 (14/14 100%, Pass)
- **Performance Gap**: Total Votes-14; H-2; M-11; L-1; I-0 (13/14 92.9%, Pass)
- Reliability: Total Votes-14; H-5; M-9; L-0; I-0 (14/14 100%, Pass)
- Validity: Total Votes-14; H-1; M-13; L-0; I-0 (14/14 100%, Pass)
- Feasibility: Total Votes-14; H-3; M-11; L-0; I-0 (14/14 100%, Pass)
- Use: Total Votes-14; Pass-13; No Pass-1 (13/14 92.9%, Pass)
- Usability: Total Votes-14; H-3; M-11; L-0; I-0 (14/14 100%, Pass)
- Standing Committee Recommendation for Endorsement: Total Votes-14; Yes-14; No-0 (14/14 100%, Pass)

The Standing Committee recommended this measure for initial endorsement.

This facility-level measure was initially submitted for endorsement during the spring 2019 cycle but was withdrawn after the stakeholders provided feedback and resubmitted the measure to the current cycle (fall 2022). The measure is not yet implemented in a quality or accountability program but is similar to existing CMS measures used in skilled nursing, rehab facilities, and home health agencies. During the evidence discussion, the Standing Committee questioned why the measure was withdrawn during the spring 2019 cycle. The developer responded, explaining that the measure was withdrawn due to plans to make two major updates to the measure, which included the following: (1) the establishment of a 72-hour window for pressure injuries to appear and (2) addressing issues identified by stakeholders in not capturing stage II pressure injuries within structured nursing documentation. The developer further noted that they expanded the specifications and incorporated a present-on-admission indicator for International Classification of Diseases, 10th Revision Clinical Modification (ICD-10 CM) diagnoses to improve the ability to screen out pressure injuries that were present upon admission. The Standing Committee did not have any further questions and voted to pass the measure on evidence.

The Standing Committee agreed that substantial gaps are present in care and performance variability as it relates to pressure injuries at the facility level and voted to pass the measure on performance gap.

During the reliability discussion, Dr. Pickering mentioned that this measure received one pre-evaluation public comment. The commenter noted that the measure was tested during the COVID-19 public health

emergency, during which time differences in scores may yield inaccurate interpretations of performance across hospitals should public reporting be implemented for this measure in the future. One Standing Committee member asked whether COVID-19 patients would be excluded and whether this would account for the concern about data gathered during the public health emergency. The developer replied that the 2020 data would not be used in public reporting but instead would focus on 2023 data onward. Another Standing Committee member asked how the 72-hour window for detection threshold was reached. The developer replied that newly admitted patients need circulation stabilization, and because the pressure injury is evolving from the inside-out, the 72-hour window was selected by the Pressure Injury Advisory Panel and other stakeholders. The Standing Committee voted to pass the measure on reliability.

Moving to validity, a Standing Committee member asked about the validity of extracted data and whether this matches data obtained from clinical documentation. Another Standing Committee member replied that clinical reviewers would determine whether it matched what is in the medical records. One Standing Committee member clarified that the National Database of Nursing Quality Indicators (NDNQI) requires nurses to report pressure ulcers and that nursing notes, such as textual data, would be reflected in the data. Another Standing Committee member noted that pressure injuries themselves are a nursing metric, which accounts for surveillance bias in nursing documentation. In response, the developer noted that all available structured documentation flows around whether pressure ulcers were utilized, including those completed by nurses or physical therapists. The developer further stated that pressure injuries are key for nurses to document, and while physicians may overlook less acute pressure injuries, it is less likely that nurses would. Regarding risk adjustment, the developer stated that risk adjustment was not used as the ideal rate of hospital-acquired pressure injuries, which is zero regardless of patient characteristics, as well as following the precedent for other CMS pressure-injury measures that do not risk-adjust. The Standing Committee did not raise any additional questions and voted to pass the measure on validity.

During the discussion on feasibility, the Standing Committee noted the concern in the pre-evaluation comments that manual abstraction of data may be required for ASCs, given that many do not use EHRs but acknowledged that this measure focuses on hospitals. Having no other points to discuss, the Standing Committee voted to pass the measure on feasibility.

Moving on to use, the Standing Committee noted that while the measure is not currently used in an accountability program, the measure was reviewed by the Measure Applications Partnership (MAP) during the 2022–2023 review cycle. The Standing Committee had no concerns and passed the measure on use.

During the usability discussion, the Standing Committee noted that considering this is a new measure, there are no trend dataavailable and no unexpected findings or potentials harms. The Standing Committee noted that this measure received conditional support for rulemaking during the MAP's review and having no concerns, it voted to pass the measure on usability and overall suitability for endorsement.

Because quorum was lost, the Standing Committee did not discuss related measures. This discussion will take place during the post-comment meeting.

NQF #3713e Hospital Harm-Acute Kidney Injury (CMS/AIR)

Description: This electronic clinical quality measure (eCQM) assesses the proportion of inpatient hospitalizations for patients 18 years of age or older who have an acute kidney injury (stage 2 or greater)

that occurred during the encounter; **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Inpatient/Hospital; **Data Source**: Electronic Health Records

Measure Steward/Developer Representatives at the Meeting

• Dr. Patrick Romano, UC Davis Health

Standing Committee Votes

- Evidence: Total Votes-14; Pass-13; No Pass-1 (13/14 92.9%, Pass)
- **Performance Gap**: Total Votes-14; H-0; M-14; L-0; I-0 (14/14 100%, Pass)
- Reliability: Total Votes-14; H-3; M-11; L-0; I-0 (14/14 100%, Pass)
- Validity: Total Votes-14; H-2; M-12; L-0; I-0 (14/14 100%, Pass)
- Feasibility: Total Votes-14; H-2; M-11; L-1; I-0 (13/14 92.9%, Pass)
- **Use**: Total Votes-14; Pass-13; No Pass-1 (13/14 92.9%, Pass)
- Usability: Total Votes-14; H-2; M-10; L-1; I-1 (12/14 85.7%, Pass)
- Standing Committee Recommendation for Endorsement: Total Votes-14; Yes-13; No-1 (13/14 92.9%, Pass)

The Standing Committee recommended the measure for initial endorsement.

This facility-level measure was newly submitted for endorsement and is not yet implemented in a quality or accountability program. However, a Standing Committee member noted that it is similar to Patient Safety Indicator 09 (PSI 09), which is a component of the PSI-90 composite measure, NQF #0531. One Standing Committee member asked whether there was an issue with the evidence, specifically related to surgical patients, while the measure is intending to be broader in scope. The developer clarified that this was due to the nature of the literature used to create the baseline for chronic kidney disease, which focuses on inpatient surgical patients. During offline voting, the Standing Committee passed the measure on evidence.

The Standing Committee reviewed the performance gap and noted that while there may be a small gap between the cited benchmarks on performance, this did not amount to any concerns. During offline voting, the Standing Committee passed the measure on performance gap.

During the reliability discussion, Dr. Pickering mentioned that this measure received one pre-evaluation public comment, which raised concerns about data generated from hospitals during the COVID-19 health emergency. The comment requested the Standing Committee to examine whether the measure should require a higher case minimum to achieve an acceptable minimum threshold for a reliability of 0.7 or greater and that differences in measure scores may be minimal and inaccurately reflect performance across hospitals should public reporting begin in the future. The Standing Committee did not find any issues with the reliability testing and results. During offline voting, the Standing Committee passed the measure on reliability.

During the validity discussion, the Standing Committee noted very small differences across data pulled from EHRs versus data manually abstracted from testing sites and that denominator data were used in removing denominator exclusions. One Standing Committee member asked for clarification on why dementia was excluded from the risk adjustment model. The developer clarified that dementia patients are not excluded from the denominator; rather, the exclusions relate to the risk model, which accounts for differing severity of illness, with dementia not being detected as a robust feature in the model and not directly relating to acute kidney injury (AKI). A Standing Committee member raised concerns about risk-adjusting patients with comorbidities and asked the developer to clarify their rationale. In response, the developer stated that risk-adjusting the measure is necessary in order to account for differences in the way hospitals and providers respond to each medical situation. The Standing Committee member replied that patients with heart failure have increased risk and therefore would not be excluded and would garner the same level of care as patients with AKI. During offline voting, the Standing Committee passed the measure on validity.

During the feasibility discussion, Standing Committee members noted that seven of 29 sites that were sampled offered dialysis as an outsourced service, making clinical documentation unavailable as a structured data element. Because the measure can capture the intended dialysis population through ICD-10 codes, the Standing Committee did not find an issue with the dialysis sampling. During offline voting, the Standing Committee passed the measure on feasibility.

During the use discussion, the Standing Committee noted existing plans to use this measure in a future accountability program, as it was submitted to the 2022 Measures Under Consideration (MUC) list. The Standing Committee did not have any questions or concerns and voted offline to pass the measure on use.

Moving to usability, one Standing Committee member asked what percentage of AKI is preventable. The developer replied that this depends on the setting and underlying conditions of the patient. Another Standing Committee member noted that it is important to prevent kidney damage in the hospital, and this would lead to prevention of outpatient-onset kidney disease. The Standing Committee did not have any questions or concerns and voted offline to pass the measure on usability and overall suitability for endorsement.

Because quorum was lost, the Standing Committee did not discuss related measures. This discussion will take place during the post-comment meeting.

Public Comment

Dr. Pickering opened the lines for NQF member and public comments. No comments were provided at this time or during the measure evaluation meeting.

Next Steps

Dr. Pickering provided an overview of the next steps. NQF will begin drafting the meeting summary of the Standing Committee's deliberations. Dr. Pickering iterated the earlier statement about the future communication to NQF stakeholders about the transition of the endorsement and maintenance work to the new successor. Dr. Pickering thanked the Standing Committee for its time, engagement, and participation in this work and adjourned the call.