NATIONAL QUALITY FORUM
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# Meeting Summary

## Cardiovascular Standing Committee – Spring 2021 Measure Evaluation Web Meeting

The National Quality Forum (NQF) convened the Cardiovascular Standing Committee (Slides) for a web meeting on July 28, 2021, to evaluate two new measures.

### Welcome, Introductions, and Review of Meeting Objectives

Amy Moyer, NQF senior director, welcomed the Standing Committee and participants to the web meeting. NQF staff reviewed the agenda. Standing Committee members each introduced themselves and disclosed any conflicts of interest. No Cardiovascular Standing Committee members were recused for either of the two measures under review for the Spring 2021 Cycle.

During the meeting, quorum (17 out of 25 Standing Committee members) required for voting was not achieved. There was a total of 16 committee members present during the entirety of the meeting. Therefore, the Standing Committee discussed all relevant criteria and voted after the meeting using an online voting tool.

### Topic Area Introduction and Overview of Evaluation Process

Janaki Panchal, NQF manager, provided an overview of the topic area and the current NQF portfolio of endorsed measures. There are currently 39 endorsed measures in the Cardiovascular portfolio. Additionally, NQF reviewed the Consensus Development Process (CDP) and the measure evaluation criteria.

### Measure Evaluation

During the meeting, the Cardiovascular Standing Committee evaluated two new measures for endorsement consideration. NQF solicits comments for four weeks prior to the measure evaluation meeting. For this evaluation cycle, the commenting period opened on April 29, 2021. No comments were submitted by the pre-meeting deadline (June 10, 2021). The summary of the Standing Committee deliberations below will also be provided in the draft technical report. NQF will post the draft technical report on August 27, 2021, for public comment on the NQF website. The draft technical report will be posted for 30 calendar days.

A measure is recommended for endorsement by the Standing Committee when the vote margin on all must-pass criteria (Importance, Scientific Acceptability, Use), and overall, is greater than 60 percent of voting members in favor of endorsement. A measure is not recommended for endorsement when the vote margin on any must-pass criterion or overall is less than 40 percent of voting members in favor of endorsement. The Standing Committee has not reached consensus if the vote margin on any must-pass criterion or overall is between 40 and 60 percent, inclusive, in favor of endorsement. When the Standing Committee has not reached consensus, all measures for which consensus was not reached will be released for NQF member and public comment. The Standing Committee will consider the comments and re-vote on those measures during a webinar convened after the commenting period closes.

**Rating Scale:** H – High; M – Medium; L – Low; I – Insufficient; NA – Not Applicable

### NQF #3610 30-Day Risk Standardized Morbidity and Mortality Composite Following Transcatheter Aortic Valve Replacement (TAVR) (American College of Cardiology (ACC))

**Description**: The TAVR 30-day morbidity/mortality composite is a hierarchical, multiple outcome risk model that estimates risk standardized results (reported as a "site difference") for the purpose or benchmarking site performance. This measure estimates hospital risk standardized site difference for five endpoints (death from all causes, stroke, major or life-threatening bleeding, acute kidney injury, moderate or severe paravalvular aortic regurgitation) within 30 days following TAVR. The measure uses clinical data available in the STS/ACC TVT Registry for risk adjustment for the purposes of benchmarking site to site performance on a rolling 3-year timeframe.; **Measure Type**: Composite; **Level of Analysis**: Facility; **Setting of Care**: Inpatient/Hospital; **Data Source**: Registry data

#### *Measure Steward/Developer Representatives at the Meeting*

Heidi Bossley – America College of Cardiology
Susan Fitzgerald – American College of Cardiology
Jarrott Mayfield – American College of Cardiology
Dr. Sean O'Brien, PhD – Duke Clinical Research Institute
Dr. Sreekanth Vemulapalli – Duke Clinical Research Institute

#### *Standing Committee Votes*

Evidence: Pass-17; No Pass-0 (denominator = 17)

Performance Gap: H-14; M-2; L-1; I-0 (denominator = 17)

Composite – Quality Construct and Rationale: H-2; M-15; L-0; I-0 (denominator = 17)

This measure is deemed as complex and Scientific Acceptability was evaluated by the NQF Scientific Methods Panel (SMP). The SMP rated the measure as moderate for reliability, validity, and composite quality construct.

Because voting was conducted after the meeting using an online voting tool, the Standing Committee voted on the criteria rather than on whether to accept the SMP's ratings.

The Standing Committee's rating for Reliability: Moderate (H-0; M-17; L-0; I-0) (denominator = 17)

The Standing Committee's rating for Validity: Moderate (H-2; M-15; L-0; I-0) (denominator = 17)

The Standing Committee's rating for Composite Quality Construct: H-1; M-16; L-0; I-0 (denominator = 17)

Feasibility: H-4; M-13; L-0; I-0 (denominator = 17)

Use: Pass-17; No Pass-0 (denominator = 17)

Usability: H-5; M-12; L-0; I-0 (denominator = 17)

*Standing Committee Recommendation for Endorsement: Yes-17; No-0 (denominator = 17)*

The Standing Committee recommended the measure for initial endorsement.

This new composite measure estimates hospital risk-standardized site difference for five endpoints (death from all causes, stroke, major or life-threatening bleeding, acute kidney injury, moderate or severe paravalvular aortic regurgitation) within 30 days following TAVR. The developer provided a general overview and description of the measure. The developer indicated a goal during development was to respond to Centers for Medicare & Medicaid Services (CMS') interest regarding a 2019 coverage decision in which CMS was interested in a periprocedural composite metric that incorporated relevant patient health outcomes and might eventually replace the volume threshold in Coverage with Evidence Development (CED) for TAVR reimbursement.

The Standing Committee sought clarification as to why pacemaker was not included in the composite as one of the endpoints. The developer noted that it decided which complications to include by examining their correlation with Kansas City Cardiomyopathy Questionnaire (KCCQ) scores, which indicate patient quality of life. The developer then ranked the complications by correlation and included the five with the highest correlation. Pacemaker was much lower on the list than the five indicated endpoints. A Standing Committee member made an argument for outcomes-based measures and cautioned that variability will not be as large as that seen in process measures, especially for a risk-standardized composite score. The member noted that monitoring performance over time will be necessary to see whether the changes in the measure are meaningful as the distribution is tight. The Standing Committee questioned why the developer would not just use the KCCQ score directly as the outcome of interest for the measure. The developer noted the challenge of combining hard outcomes, like mortality, with quality-of-life scores, such as patient experience. The measure is meant to be interpretable for sites. A Standing Committee member noted there is also the question of using. They had doubts about whether there would be meaningful change in the KCCQ in a 30-day measure and that six months or a year might be necessary to see meaningful change.

The measure was reviewed by the SMP, which rated reliability, validity, and composite quality construct as moderate. The measure was not pulled for discussion during the March 2021 meeting. The SMP did not have any substantial concerns regarding the scientific acceptability of this measure. The Standing Committee had no concerns regarding reliability or validity. The SMP subgroup members generally supported the composite construction. A couple of the SMP subgroup members questioned whether the additional complexity of this approach resulted in more precise measurement. A Standing Committee member raised a concern that sites may have a hard time translating their score to clinical gaps due to the hierarchal construct of the different complications. The developer noted that it will include the individual component rates in its report to sites. The developer also indicated that the outcome reports have 40 detail lines including patient drill downs. The Standing Committee asked about how the developer makes sure the risk model remains well calibrated. The developer indicated that the risk model is re-estimated with each new harvest of data, which keeps it well calibrated.

The Standing Committee had no concerns with the feasibility of the measure. This data is part of routine reporting into the Society of Thoracic Surgeons (STS)/ACC Transcatheter Valve Therapy (TVT) Registry as a condition of CMS coverage. The Standing Committee had no concerns regarding use or usability.

NQF #3610 has one related measure, NQF #3534 *30-Day All-Cause Risk Standardized Mortality Odds Ratio Following Transcatheter Aortic Valve Replacement (TAVR)* (ACC). The developer indicated the two measures are closely aligned. NQF #3610 is a composite measure and NQF #3534 is an outcome measure of mortality. The developer indicated they would like to retire NQF #3534 to avoid confusion between the two measures. A Standing Committee member inquired whether mortality would still be reported separately on the planned website as there is no harder endpoint than mortality. The Standing Committee member also noted that sometimes composite measures with softer endpoints end up overwhelming mortality. The developer indicated that the planned public reporting would only include the risk-standardized score for the overall composite. The developer felt that the public needed to be able to digest the data and that one score was clearer. The Standing Committee member further noted that from a usability standpoint, sites would need to know how they compare on components to know how to address improvements. The developer clarified that the sites would see all endpoints on their outcomes report.

After the meeting, the Standing Committee was sent a recording of the meeting and submitted online votes. The Standing Committee passed the measure on all criteria and on overall suitability for endorsement.

### NQF #3613e Appropriate Treatment for ST-Segment Elevation Myocardial Infarction (STEMI) Patients in the Emergency Department (ED) (Yale Center for Outcomes Research & Evaluation (CORE)/CMS)

**Description**: The percentage of ED patients with a diagnosis of STEMI who received appropriate and timely treatment. The measure will be calculated using electronic health record (EHR) data and is intended for use at the facility level in a CMS accountability program, through which it may be publicly reported.; **Measure Type**: Process; **Level of Analysis**: Facility; **Setting of Care**: Outpatient Services **Data Source**: EHR

#### *Measure Steward/Developer Representatives at the Meeting*

The Steward/Developer were unable to attend the meeting.

#### *Standing Committee Votes*

Evidence: H-4; M-13; L-0; I-0 (denominator = 17)

Performance Gap: H-5; M-11; L-0; I-1 (denominator = 17)

Reliability: M-14; L-1; I-2 (denominator = 17)

Validity: M-13; L-3; I-1 (denominator = 17)

Feasibility: H-5; M-10; L-2; I-0 (denominator = 17)

Use: Pass-17; No Pass-0 (denominator = 17)

Usability: H-3; M-14; L-0; I-0 (denominator = 17)

#### *Standing Committee Recommendation for Endorsement: Yes-16; No-1 (denominator = 17)*

The Standing Committee recommended the measure for initial endorsement.

This new electronic clinical quality measure (eCQM) assesses whether patients with ST-Segment Elevation Myocardial Infarction (STEMI) in the ED receive timely guideline-indicated reperfusion care that is appropriate for the treatment setting. The developer was unable to attend the meeting, so it provided a written introduction to the measure, which Ms. Moyer read to the Standing Committee. In

the written introduction, the developer indicated that CMS developed this measure for use in the Hospital Outpatient Quality Reporting Program. The measure captures the timeliness of the three main approaches to reperfusion in STEMI patients (onsite percutaneous coronary intervention [PCI], transfer to a PCI-capable facility, and fibrinolytics) in one measure.

The lead discussant noted that the measure is supported by two guidelines, the American Heart Association (AHA) and American College of Cardiology Foundation (ACC) STEMI guidelines from 2013 and the Emergency Department Management of Patients Needing Reperfusion Therapy for Acute ST-Segment Elevation Myocardial Infarction guideline released in 2017 by the American College of Emergency Physicians (ACEP). The Standing Committee had no concerns with the evidence. The lead discussant moved forward to discussing performance gap. Since this is a new measure that has not been fully implemented, performance score data were not available to assess gap. The developer shared gap information from the literature and similar measures. The information shared demonstrated significant variability in the capability of the emergency departments to perform reperfusion in a timely manner. The Standing Committee noted that the information shared indicated disparities by patient gender, race, and ethnicity, and by facility rural status. Standing Committee members highlighted the importance of stratifying results on this measure when performance results are available. A Standing Committee member noted that an advantage of this measure is availability of race, ethnicity, and language data in the clinical record. They also noted that the importance of finding opportunities for improvement. A Standing Committee member asked for clarification on how to evaluate performance gap when scores are not available, and Ms. Moyer responded that using information from the literature on new measures is appropriate for new measures that have not yet been implemented.

The lead discussant moved on to scientific acceptability noting that the developer had submitted data-element validity testing to satisfy both reliability and validity. The developer looked at data element validity at two different hospital systems, with two different electronic health record (EHR) systems. Standing Committee members noted that the Kappa coefficients for the denominator agreement were on the low side and questioned whether this reflected a failure of the systems or a failure of the measure. They reasoned that the low agreement could reflect a system failure to diagnose and capture the relevant patient population. Standing Committee members were in agreement that systems need to improve data capture and performance and that all facilities should be able to achieve high performance on the measure. The Standing Committee discussed the challenge of implementing electronic clinical quality measures when data quality may not be ideal. The Standing Committee agreed that implementing the measures will provide an incentive to improve the data quality and that improvement may not occur in the absence of this incentive.

The Standing Committee questioned the feasibility of capturing door-to-balloon times, citing interoperability concerns. Frequently the emergency department and catheterization lab use different software platforms. Standing Committee members stressed the importance of timely treatment and that accurately capturing door-to-balloon time is critical to assessing care quality. They stated that issues identified while implementing the measure will prompt systems to fix any data issues. The Standing Committee felt that systems would identify workflow and data issues while implementing the measure and that fixing these issues would improve documentation and patient care.

The Standing Committee had no concerns with use, given the measure's intended use in a federal program. Members raised questions about the usability and asked whether facilities would be able to see detailed results. Chris Millet, a consultant who works with NQF to evaluate eCQMs, clarified that the intent with eCQMs is for systems to calculate the measure within their own systems, giving them full access to all results and data.

Lastly, the Standing Committee discussed overall suitability for endorsement. The Standing Committee revisited the earlier discussion of existing data quality and interoperability. Standing Committee members noted that eCQMs are an important step forward in measurement and that performance measurement could not continue to set a low-bar due to feasibility concerns. Standing Committee members noted that this measure captures information about processes that are key to patient outcomes and that the results are easy to understand. They highlighted the need to push for improved data and interoperability and to overcome implementation issues with eCQMs. Mr. Millet noted that the implementation challenges being discussed are not unique to this measure and that more interoperability and application-program interfaces (APIs) will facilitate more electronic measurement. The Standing Committee agreed with the need for more APIs and electronic measurement.

NQF #3613e had two related measures, NQF #0290 *Median Time to Transfer to Another Facility for Acute Coronary Intervention* and NQF #2377 *Overall Defect Free Care for AMI*. The Standing Committee noted that the measures capture different information and did not voice any concern with burden or confusion.

After the meeting, the Standing Committee was sent a recording of the meeting and submitted online votes. The Standing Committee passed the measure on all criteria and on overall suitability for endorsement.

## Public Comment

No public or NQF member comments were provided during the measure evaluation meeting.

## Next Steps

Ms. Karri Albanese, NQF analyst, provided next steps, noting that NQF will prepare a draft technical report, which will detail the Cardiovascular Standing Committee's discussion and recommendations on both of the measures. NQF will post the draft technical report for a 30-day commenting period on August 27, 2021. The continuous public commenting period with member support will close on September 27, 2021. NQF will reconvene the Standing Committee for the post-comment web meeting on October 29, 2021, to review and discuss public comments received during the commenting period.