

Cardiovascular Spring 2018 Measure Review Cycle Standing Committee Measure Evaluation Tutorial Web Meeting

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Welcome

NQF Staff

Project staff

- Melissa Mariñelarena, RN, MPA, CPHQ, Senior Director
- Poonam Bal, MHSA, Senior Project Manager
- May Nacion, MPH, Project Manager
- Vanessa Moy, MPH, Project Analyst
- NQF Quality Measurement leadership staff
 - Elisa Munthali, Senior Vice President

Agenda for the Call

- Introductions
- Overview of the Roles of the Standing Committee, Co-chairs, and NQF staff
- Overview of NQF's portfolio of Cardiovascular measures
- Overview of NQF's measure evaluation criteria
- Public Comment
- SharePoint Tutorial
- Next steps

Cardiovascular Standing Committee

- Mary George, MD, MSPH, FACS, FAHA (Co-Chair)
- Thomas Kottke, MD, MSPH (Co-Chair)
- Sana Al-Khatib, MD, MHS
- Carol Allred, BA
- Linda Baas, PhD, RN
- Linda Briggs, DNP
- Leslie Cho, MD
- Joseph Cleveland, MD
- Michael Crouch, MD, MSPH, FAAFP
- Elizabeth DeLong, PhD
- Kumar Dharmarajan, MD, MBA
- William Downey, MD
- Brian Forrest, MD

- Naftali Frankel, MS*
- Ellen Hillegass, PT, EdD, CCS, FAACVPR, FAPTA
- Thomas James, MD
- Charles Mahan, PharmD, PhC, RPh
- Joel Marrs, Pharm.D., FCCP, FASHP, FNLA, BCPS-AQ Cardiology, BCACP, CLS
- Kristi Mitchell, MPH
- Gary Puckrein, PhD
- Nicholas Ruggiero, MD FACP FACC FSCAI FSVM FCPP
- Susan Strong*
- Jason Spangler, MD, MPH, FACPM
- Mladen Vidovich, MD
- Daniel Waxman, MD, PhD
- *New Committee Member

Overview of the Roles

NATIONAL QUALITY FORUM

Role of the Standing Committee General Duties

- Act as a proxy for the NQF multistakeholder membership
- Serve 2-year or 3-year terms
- Work with NQF staff to achieve the goals of the project
- Evaluate candidate measures against the measure evaluation criteria
- Respond to comments submitted during the review period
- Respond to any directions from the CSAC

Role of the Standing Committee Measure Evaluation Duties

- All members evaluate ALL measures
- Evaluate measures against each criterion
 - Indicate the extent to which each criterion is met and rationale for the rating
- Make recommendations to the NQF membership for endorsement
- Oversee Cardiovascular portfolio of measures
 - Promote alignment and harmonization
 - Identify gaps

Role of the Standing Committee Co-Chairs

- Co-facilitate Standing Committee (SC) meetings
- Work with NQF staff to achieve the goals of the project
- Assist NQF in anticipating questions and identifying additional information that may be useful to the SC
- Keep SC on track to meet goals of the project without hindering critical discussion/input
- Represent the SC at CSAC meetings
- Participate as a SC member

Role of NQF Staff

- NQF project staff works with SC to achieve the goals of the project and ensure adherence to the consensus development process:
 - Organize and staff SC meetings and conference calls
 - Guide the SC through the steps of the CDP and advise on NQF policy and procedures
 - Review measure submissions and prepare materials for Committee review
 - Draft and edit reports for SC review
 - Ensure communication among all project participants (including SC and measure developers)
 - Facilitate necessary communication and collaboration between different NQF projects

Role of Methods Panel

- Scientific Methods Panel created to ensure higher-level and more consistent reviews of the scientific acceptability of measures
- The Methods Panel is charged with:
 - Conducting evaluation of complex measures for the Scientific Acceptability criterion, with a focus on reliability and validity analyses and results
 - Serve in advisory capacity to NQF on methodologic issues, including those related to measure testing, risk adjustment, and measurement approaches.
- The method panel review will help inform the standing committee's endorsement decision. The panel will not render endorsement recommendations.

NQF Consensus Development Process (CDP) Measure Evaluation



Role of the Expert Reviewers

- In 2017, NQF executed a CDP redesign that resulted in restructuring and reducing the number of topical areas as well as a bi-annual measure review process
- Given these changes, there is a need for diverse yet specific expertise to support longer and continuous engagement from standing committees

Questions?

Overview of NQF's Cardiovascular Portfolio

Cardiovascular Portfolio of Measures

- This project will evaluate measures related to Cardiovascular conditions that can be used for accountability and public reporting for all populations and in all settings of care. The second phase of this project will address topic areas including:
 - Acute Myocardial Infarction (AMI)
 - Percutaneous Coronary Intervention (PCI)
- NQF solicits new measures for possible endorsement.
- NQF currently has more than 50 endorsed measures within the cardiovascular area. Endorsed measures undergo periodic evaluation to maintain endorsement – "maintenance."

Cardiovascular Portfolio of Measures Under Review

Measures for Maintenance Evaluation

Percutaneous Coronary Intervention (PCI)

 0535 30-Day All-cause Risk-Standardized Mortality Rate following Percutaneous Coronary Intervention (PCI) for Patients without ST Segment Elevation Myocardial Infarction (STEMI) and without Cardiogenic Shock

Acute Myocardial Infarction (AMI)

 2473 Hybrid Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate (RSMR) following Acute Myocardial Infarction (AMI) emeasure

Atrial Fibrillation/Atrial Flutter

- 1525 Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy
- 2474 Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation

Blood Pressure Control

0018 Controlling High Blood Pressure

Coronary Artery Disease

- 0066 Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)
- 0067 Chronic Stable Coronary Artery Disease: Antiplatelet Therapy
- 0070 Coronary Artery Disease (CAD): Beta-Blocker Therapy—Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)
- 2906 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%) – Legacy eMeasure

Cardiac Catheterization

- 0355 Bilateral Cardiac Catheterization Rate (IQI 25)
- 0715 Standardized adverse event ratio for children < 18 years of age undergoing cardiac catheterization

Cardiac Imaging

- 0669 Cardiac Imaging for Preoperative Risk Assessment for Non-Cardiac, Low Risk Surgery
- 0672 Cardiac stress imaging not meeting appropriate use criteria: Testing in asymptomatic, low risk patients
- 0670 Cardiac stress imaging not meeting appropriate use criteria: Preoperative evaluation in low risk surgery patients

Statin Use

2712 Statin Use in Persons with Diabetes

Stent Placement

 2396 Carotid artery stenting: Evaluation of Vital Status and NIH Stroke Scale at Follow Up

Implantable Cardioverter Defibrillator (ICD)

- 0965 Patients with an ICD implant who receive ACE-I/ARB and beta blocker therapy at discharge
- 0694 Hospital Risk-Standardized Complication Rate following Implantation of Implantable Cardioverter-Defibrillator (ICD)

Cardiovascular Implantable Electronic Device (CIED)

 2461 In-Person Evaluation Following Implantation of a Cardiovascular Implantable Electronic Device (CIED)

Ischemic Vascular Disease

- 0068 Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic
- 0073 Ischemic Vascular Disease (IVD): Blood Pressure Control
- 0076 Optimal Vascular Care

Heart Failure

- 0277 Heart Failure Admission Rate (PQI 8)
- 2438 Beta-Blocker Therapy (i.e., Bisoprolol, Carvedilol, or Sustained-Release Metoprolol Succinate) for LVSD Prescribed at Discharge
- 2443 Post-Discharge Evaluation for Heart Failure Patients
- 2455 Heart Failure: Post-Discharge Appointment for Heart Failure Patients
- 2450 Heart Failure: Symptom and Activity Assessment
- 2439 Post-Discharge Appointment for Heart Failure Patients
- 0083 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
- 2908 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) (eMeasure paired with 0083)
- 0081 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)
- 2907 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD) (eMeasure paired with 0081)
- 0079 Heart Failure: Left Ventricular Ejection Fraction Assessment (Outpatient Setting)
- 2764 Combination of Hydralazine and Isosorbide Dinitrate Therapy for Self-identified Black or African American Patients with Heart Failure and LVEF <40% on ACEI or ARB and Beta-blocker Therapy (Trial Use eMeasure)
- 0229 Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following heart failure (HF) hospitalization for patients 18 and older
- 0358 Heart Failure Mortality Rate (IQI 16)

Acute Myocardial Infarction (MI)

- 0090 Emergency Medicine: 12-Lead Electrocardiogram (ECG) Performed for Non-Traumatic Chest Pain
- 0290 Median Time to Transfer to Another Facility for Acute Coronary Intervention
- 0142 Aspirin prescribed at discharge for AMI
- 0642 Cardiac Rehabilitation Patient Referral from an Inpatient Setting
- 0643 Cardiac Rehabilitation Patient Referral from an Outpatient Setting
- 0137 ACEI or ARB for left ventricular systolic dysfunction- Acute Myocardial Infarction (AMI) Patients
- 0071 Persistence of Beta-Blocker Treatment After a Heart Attack
- 2377 Defect Free Care for AMI
- 2473 Hospital 30-Day Risk-Standardized Acute Myocardial Infarction (AMI) Mortality eMeasure
- 0730 Acute Myocardial Infarction (AMI) Mortality Rate
- 0230 Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following acute myocardial infarction (AMI) hospitalization for patients 18 and older.

Percutaneous Coronary Intervention (PCI)

- 0671 Cardiac stress imaging not meeting appropriate use criteria: Routine testing after percutaneous coronary intervention (PCI)
- 0964 Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients
- 0536 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock
- 0535 30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock
- 0133 In-Hospital Risk Adjusted Rate of Mortality for Patients Undergoing PCI
- 2459 Risk Adjusted Rate of Bleeding Events for patients undergoing PCI

NQF-Endorsed Cardiovascular Measures in Other Projects

Surgery

- 0114 Risk-Adjusted Post-Operative Renal Failure
- 0115 Risk-Adjusted Surgical Re-exploration
- 0116 Anti-Platelet Medication at Discharge
- 0117 Beta Blockade at Discharge
- 0118 Anti-Lipid Treatment Discharge
- 0119 Risk-Adjusted Operative Mortality for CABG
- 0122 Risk-Adjusted Operative Mortality MV Replacement + CABG Surgery
- 0123 Risk-Adjusted Operative Mortality for Aortic Valve Replacement (AVR) + CABG Surgery
- 0126 Selection of Antibiotic Prophylaxis for Cardiac Surgery Patients
- 0127 Preoperative Beta Blockade
- 0128 Duration of Antibiotic Prophylaxis for Cardiac Surgery Patients
- 0129 Risk-Adjusted Prolonged Intubation (Ventilation)
- 0130 Risk-Adjusted Deep Sternal Wound Infection Rate
- 0131 Risk-Adjusted Stroke/Cerebrovascular Accident
- 0134 Use of Internal Mammary Artery (IMA) in Coronary Artery Bypass Graft (CABG)
- 0696 The STS CABG Composite Score
- 1502 Risk-Adjusted Operative Mortality for MV Repair + CABG Surgery

NQF-Endorsed Cardiovascular Measures in Other Projects cont

Patient Experience and Function

- 2020 Adult Current Smoking Prevalence
- 0028 Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention
- 1933 Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia

Readmissions

- 0505 Hospital 30-Day All-Cause, Risk-Standardized Readmission Rate (RSSR) Following Acute Myocardial Infarction (AMI) Hospitalization
- 0330 Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate (RSSR) Following Heart Failure Hospitalization

Activities and Timeline

*All times ET

Cycle 2

Meeting	Date/Time
Committee Measure Evaluation	Friday, June 22, 1:00-4:00 PM
Web Meeting	
Committee Post-Meeting Web	Friday, June 29, 2:00-4:00 PM
Meeting	
Post Draft Report Comment Web	Thursday, September 13, 1:00-3:00 PM
Meeting	

Questions?

Measure Evaluation Criteria Overview

NQF Measure Evaluation Criteria for Endorsement

NQF endorses measures for accountability applications (public reporting, payment programs, accreditation, etc.) as well as quality improvement.

- Standardized evaluation criteria
- Criteria have evolved over time in response to stakeholder feedback
- The quality measurement enterprise is constantly growing and evolving—greater experience, lessons learned, expanding demands for measures—the criteria evolve to reflect the ongoing needs of stakeholders

Major Endorsement Criteria (page 28)

- Importance to measure and report: Goal is to measure those aspects with greatest potential of driving improvements; if not important, the other criteria are less meaningful (must-pass)
- Reliability and Validity-scientific acceptability of measure properties: Goal is to make valid conclusions about quality; if not reliable and valid, there is risk of improper interpretation (must-pass)
- Feasibility: Goal is to, ideally, cause as little burden as possible; if not feasible, consider alternative approaches
- Usability and Use: Goal is to use for decisions related to accountability and improvement; if not useful, probably do not care if feasible
- Comparison to related or competing measures

Criterion #1: Importance to Measure and Report (page 30-39)

1. Importance to measure and report - Extent to which the specific measure focus is evidence-based and important to making significant gains in healthcare quality where there is variation in or overall less-than-optimal performance.

1a. Evidence: the measure focus is evidence-based

1b. Opportunity for Improvement: demonstration of quality problems and opportunity for improvement, i.e., data demonstrating considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or disparities in care across population groups

1c. Quality construct and rationale (composite measures only)

Subcriteron 1a: Evidence (page 31-37)

Outcome measures

Empirical data demonstrate a relationship between the outcome and at least one healthcare structure, process, intervention, or service. If not available, wide variation in performance can be used as evidence, assuming the data are from a robust number of providers and results are not subject to systematic bias.

Structure, process, intermediate outcome measures

- The quantity, quality, and consistency of the body of evidence underlying the measure should demonstrate that the measure focuses on those aspects of care known to influence desired patient outcomes
 - » Empirical studies (expert opinion is not evidence)
 - » Systematic review and grading of evidence
 - *Clinical Practice Guidelines variable in approach to evidence review*
- For measures derived from patient (or family/parent/etc.) report
 - Evidence should demonstrate that the target population values the measured outcome, process, or structure and finds it meaningful.
 - Current requirements for structure and process measures also apply to patient-reported structure/process measures.

Rating Evidence: Algorithm #1 – page 34



Criterion #1: Importance to measure and report Criteria emphasis is different for new vs. maintenance measures

New measures	Maintenance measures
 Evidence – Quantity, quality, consistency (QQC) Established link for process measures with outcomes 	DECREASED EMPHASIS: Require measure developer to attest evidence is unchanged evidence from last evaluation; Standing Committee to affirm no change in evidence IF changes in evidence, the Committee will evaluate as for new measures
 Gap – opportunity for improvement, variation, quality of care across providers 	INCREASED EMPHASIS : data on current performance, gap in care and variation

Criterion #2: Reliability and Validity–Scientific Acceptability of Measure Properties (page 39 -48)

Extent to which the measure, <u>as specified</u>, produces consistent (reliable) and credible (valid) results about the quality of health care delivery

2a. Reliability (must-pass)

2a1. Precise specifications including exclusions 2a2. Reliability testing—data elements or measure score

2b. Validity (must-pass)

2b1. Validity testing—data elements or measure score
2b2. Justification of exclusions—relates to evidence
2b3. Risk adjustment—typically for outcome/cost/resource use
2b4. Identification of differences in performance
2b5. Comparability of data sources/methods
2b6. Missing data

Reliability and Validity (page 40)

Assume the center of the target is the true score...







Reliable Not Valid

Consistent, but wrong

Neither Reliable Nor Valid

Inconsistent & wrong

Both Reliable And Valid

Consistent & correct
Evaluating Scientific Acceptability – Key Points (page 41)

Empirical analysis to demonstrate the reliability and validity of the *measure as specified*, including analysis of issues that pose threats to the validity of conclusions about quality of care such as exclusions, risk adjustment/stratification for outcome and resource use measures, methods to identify differences in performance, and comparability of data sources/methods.

Reliability Testing Key points - page 42

- Reliability of the *measure score* refers to the proportion of variation in the performance scores due to systematic differences across the measured entities in relation to random variation or noise (i.e., the precision of the measure).
 - Example Statistical analysis of sources of variation in performance measure scores (signal-to-noise analysis)
- Reliability of the *data elements* refers to the repeatability/reproducibility of the data and uses patient-level data

Example –inter-rater reliability

- Consider whether testing used an appropriate method and included adequate representation of providers and patients and whether results are within acceptable norms
- Algorithm #2

Rating Reliability: Algorithm #2 – page 43



Validity testing (pages 44 - 49) Key points – page 47

Empirical testing

- Measure score assesses a hypothesized relationship of the measure results to some other concept; assesses the correctness of conclusions about quality
- Data element assesses the correctness of the data elements compared to a "gold standard"

Face validity

- Subjective determination by experts that the measure appears to reflect quality of care
 - » Empirical validity testing is expected at time of maintenance review; if not possible, justification is required.
 - » Requires systematic and transparent process, by identified experts, that explicitly addresses whether performance scores resulting from the measure as specified can be used to distinguish good from poor quality. The degree of consensus and any areas of disagreement must be provided/discussed.

Rating Validity: Algorithm #3 – page 48



Threats to Validity

Conceptual

- Measure focus is not a relevant outcome of healthcare or not strongly linked to a relevant outcome
- Unreliability
 - Generally, an unreliable measure cannot be valid
- Patients inappropriately excluded from measurement
- Differences in patient mix for outcome and resource use measures
- Measure scores that are generated with multiple data sources/methods
- Systematic missing or "incorrect" data (unintentional or intentional)

Criterion #2: Scientific Acceptability

New measures	Maintenance measures
 Measure specifications are precise with all information needed to implement the measure 	NO DIFFERENCE: Require updated specifications
 Reliability Validity (including risk- adjustment) 	DECREASED EMPHASIS: If prior testing adequate, no need for additional testing at maintenance with certain exceptions (e.g., change in data source, level of analysis, or setting) Must address the questions regarding use of social risk factors in risk- adjustment approach

Criterion #3: Feasibility (page 49) Key Points – page 50

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement.

3a: Clinical data generated during care process3b: Electronic sources3c: Data collection strategy can be implemented

Criterion #4: Usability and Use (page 50) Key Points – page 51

Extent to which potential audiences (e.g., consumers, purchasers, providers, policymakers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

Use (4a) Now must-pass for maintenance measures

4a1: Accountability and Transparency: Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement.

4a2: Feedback by those being measured or others: Those being measured have been given results and assistance in interpreting results; those being measured and others have been given opportunity for feedback; the feedback has been considered by developers.

Usability (4b)

4b1: Improvement: Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated.

4b2: Benefits outweigh the harms: The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

Criteria #3-4: Feasibility and Usability and Use

Feasibility

New measures	Maintenance measures
 Measure feasible, including eMeasure feasibility assessment 	NO DIFFERENCE: Implementation issues may be more prominent

Usability and Use

New measures	Maintenance measures
 Use: used in accountability applications and public reporting 	INCREASED EMPHASIS : Much greater focus on measure use and usefulness, including both impact and unintended consequences
 Usability: impact and unintended consequences 	

Criterion #5: Related or Competing Measures (page 51-52)

If a measure meets the four criteria <u>and</u> there are endorsed/new related measures (same measure focus <u>or</u> same target population) or competing measures (both the same measure focus <u>and</u> same target population), the measures are compared to address harmonization and/or selection of the best measure.

- 5a. The measure specifications are harmonized with related measures **OR** the differences in specifications are justified.
- 5b. The measure is superior to competing measures (e.g., is a more valid or efficient way to measure) OR multiple measures are justified.

Evaluation Process

- Preliminary analysis (PA): To assist the Committee evaluation of each measure against the criteria, NQF staff and Methods Panel (if applicable) will prepare a PA of the measure submission and offer preliminary ratings for each criteria.
 - The PA will be used as a starting point for the Committee discussion and evaluation
 - Methods Panel will complete review of Scientific Acceptability criterion for complex measures
- Individual evaluation: Each Committee member conducts an in-depth evaluation on all measures (responses collected via SharePoint)
 - Each Committee member will be assigned a subset of measures for which they will serve as lead discussant in the evaluation meeting.

Evaluation Process

- Measure evaluation and recommendations at the inperson/web meeting: The entire Committee will discuss and rate each measure against the evaluation criteria and make recommendations for endorsement.
- Staff will prepare a draft report detailing the Committee's discussion and recommendations
 - This report will be released for a 30-day public and member comment period
- Post-comment call: The Committee will re-convene for a post-comment call to discuss comments submitted
- Final endorsement decision by the CSAC
- Appeals (if any)

Questions?

Public Comment

http://share.qualityforum.org/Projects/Cardiovascular/SitePages/Home.aspx

- Accessing SharePoint
- Standing Committee Policy
- Standing Committee Guidebook
- Measure Document Sets
- Meeting and Call Documents
- Committee Roster and Biographies
- Calendar of Meetings

Screen shot of homepage:



- Please keep in mind:
- + and signs :



Measure Worksheet and Measure Information

Measure Worksheet

- Preliminary analysis, including eMeasure Technical Review if needed, and preliminary ratings
- Member and public comments
- Information submitted by the developer
 - » Evidence and testing attachments
 - » Spreadsheets
 - » Additional documents

Next Steps

Next Steps

- Preliminary Evaluation Survey
- Measure Evaluation Web Meeting
 Friday, June 22, 1:00-4:00 PM ET

Project Contact Info

- Email: <u>cardiovascular@qualityforum.org</u>
- NQF Phone: 202-783-1300
- Project page: <u>http://www.qualityforum.org/Project_Pages/Cardiovasc_ular.aspx</u>
- SharePoint site: <u>http://share.qualityforum.org/Projects/Cardiovascular/Si</u> <u>tePages/Home.aspx</u>

Questions?

Thank You