NATIONAL QUALITY FORUM

Memo

October 21, 2019

To: Consensus Standards Approval Committee (CSAC)

From: Cardiovascular Project Team

Re: Spring 2019 Review Cycle

CSAC Action Required

The CSAC will review recommendations from the Cardiovascular Standing Committee at its October 21 and October 22, 2019 meetings and vote on whether to uphold the recommendations from the Committee.

This memo includes a summary of the project, measure recommendations, and responses to the public and member comments and the results from the NQF member expression of support. The following documents accompany this memo:

1. Cardiovascular Draft Report. The draft report has been updated to reflect the changes made following the Standing Committee's discussion of public and member comments. The complete draft report and supplemental materials are available on the project webpage.
2. Comment Document. This document includes one comment received during the post-meeting comment period and the committee response.

Background

The measures in the Cardiovascular portfolio have been grouped into various conditions, diseases, or procedures related to cardiovascular health. These topic areas include primary prevention and screening, coronary artery disease (CAD), ischemic vascular disease (IVD), acute myocardial infarction (AMI), cardiac catheterization, percutaneous catheterization intervention (PCI), heart failure (HF), rhythm disorders, implantable cardioverter-defibrillators (ICDs), cardiac imaging, cardiac rehabilitation, and high blood pressure. This review cycle assessed two topic areas: myocardial infarction and heart failure.

The Cardiovascular Standing Committee oversees the NQF Cardiovascular measure portfolio, and evaluates both newly submitted and previously endorsed measures against NQF's measure evaluation criteria, identifies gaps in the measurement portfolio, and provides feedback on how the portfolio should evolve.

On June 19 and 20, 2019, the Cardiovascular Standing Committee evaluated six maintenance measures against NQF's criteria. The Committee initially recommended five measures for endorsement and did not reach consensus on one measure. Following a public comment period and a post-comment webinar on September 24, 2019, the Committee voted to recommend all six measures for endorsement.

Draft Report

The Cardiovascular draft report presents the results of the evaluation and endorsement recommendations of six measures considered under the Consensus Development Process (CDP)..

The measures were evaluated against the 2018 version of the measure evaluation criteria.

	Maintenance	New	Total
Measures under consideration	6	0	6
Measures recommended for endorsement	6	0	6
Measures recommended for inactive endorsement with reserve status	0	0	0
Measures approved for trial use	0	0	0
Measures not recommended for endorsement or trial use	0	0	0
Measures withdrawn from consideration	0	0	0
Reasons for not recommending	Importance - 0 Scientific Acceptability – 0 Use – 0 Overall - 0 Competing Measure - 0	Importance - 0 Scientific Acceptability - 0 Use - 0 Overall - 0 Competing Measure – 0	

CSAC Action Required

Pursuant to the CDP, the CSAC is asked to consider endorsement of six candidate consensus measures.

Measures Recommended for Endorsement

- 0070 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF<40%)

Overall Suitability for Endorsement: Yes-15; No-1

- 0070e Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF<40%) eCQM

Overall Suitability for Endorsement: Yes-14; No-2

- 0081 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-NeprilysinInhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Overall Suitability for Endorsement: Yes-13; No-3

- 0081e Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-NeprilysinInhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD) eCQM

Overall Suitability for Endorsement: Yes-14; No-2

- 0083 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Overall Suitability for Endorsement: Yes-14; No-2

- 0083e Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) eCQM

Overall Suitability for Endorsement: Yes-13; No-2

Comments and Their Disposition

NQF received one comment from the measure developer, which was the same for all six measures being evaluated, in support of a measure being reviewed.

The comment is posted to the Cardiovascular project webpage.

Member Expression of Support

Throughout the 16-week continuous public commenting period, NQF members had the opportunity to express their support ('support' or 'do not support') for each measure submitted for endorsement consideration to inform the Committee's recommendations. No NQF members provided their expressions of support.

Appendix A: CSAC Checklist

The table below lists the key considerations to inform the CSAC's review of the measures submitted for endorsement consideration.

Key Consideration	Yes/No	Notes
Were there any process concerns raised during the CDP project? If so, briefly explain.	No	
Did the Standing Committee receive requests for reconsideration? If so, briefly explain.	Yes	The Standing Committee Co-Chairs and NQF staff requested a re-vote on the three eCQM measures being reviewed due to inconsistencies between initial voting results and measure evalutation meeting discussions.
Did the Standing Committee overturn any of the Scientific Methods Panel's ratings of Scientific Acceptability? If so, state the measure and why the measure was overturned.	No	
If a recommended measure is a related and/or competing measure, was a rationale provided for the Standing Committee's recommendation? If not, briefly explain.	Yes	The eCQMs are the electronic version of the claims based measures and offer providers an additional source for data collection and participation in federal programs.
Were any measurement gap areas addressed? If so, identify the areas.	No	
Are there additional concerns that require CSAC discussion? If so, briefly explain.	No	

Appendix B: Details of Measure Evaluation

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

Measures Recommended

0070 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy

Numerator Statement: Patients who were prescribed beta-blocker therapy

Denominator Statement: All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior (within the past 3 years) MI or a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the health care system).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Other, Outpatient Services, Post-Acute Care

Type of Measure: Process

Data Source: Registry Data

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/19/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-4**; **M-8**; **L-4**; **I-0**

Rationale:

- For the 2016 endorsement evaluation, the developer provided the 2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients with Stable Ischemic Heart Disease. The guideline recommended beta-blocker therapy should be started and continued for 3 years in all patients with normal LV function after MI or ACS (Class I, Level of Evidence: B); beta-blocker therapy should be used in all patients with LV systolic dysfunction (EF ≤40%) with heart failure or prior MI,

unless contraindicated (Use should be limited to carvedilol, metoprolol succinate, or bisoprolol, which have been shown to reduce risk of death.) (Class I, Level of Evidence: A). For the current evaluation, the Committee agreed the evidence basis for the measure has not changed and did not repeat the discussion. In the pre-evaluation comments, one of the Committee members noted the evidence base remains unchanged; however, there have been meta analyses suggesting that beta blocker therapy in CAD may have an "expiration date" after AMI.

- To demonstrate a performance gap, the developer provided registry data for 1,100 providers and 18,558 quality events from CMS's PQRS program from January 2016 to December 2016. The developer reported a mean of 0.92; median 1.00; mode 1.00; standard deviation 0.14; range 0.93; minimum 0.07; maximum 1.00; and interquartile range 0.13 (1.00 – 0.88). The Registry/QCDR average performance rate reported for the 2018 MIPS benchmark report was 84.2% and standard deviation of 15.2.
- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- Generally, the Committee agreed the performance data continues to warrant a national performance registry measure though no data on disparities from the measure were provided.

---

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-14**; **L-0**; **I-0**; 2b. Validity: **H-0**; **M-11**; **L-3**; **I-2**

<u>Rationale</u>:

- The levels of analysis and care settings are inconsistent with the testing provided. The level of analysis (LoA) specified are for individual clinicians and clinician groups. The care settings specified are home care, other, outpatient services, post-acute care, nursing facility visit, and care services in long-term residential facility. The LoA and care settings in the measure specifications must align with testing (clinician group and outpatient services). Additional testing is required for endorsement at the individual clinician level in home care, post-acute care, nursing facility visit, and care services in long-term residential facility.
- The Committee expressed some concerns about the specifications including the documentation of a prior MI and current or prior EF <40% in outpatient medical records.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.85 for 1+ events and 0.84 for 10+ events. One of the Committee members noted the inconsistency between the level of analysis and care settings and the testing provided.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0070) and another registry performance measure, NQF #0066: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor

and Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%) (PQRS #118) due to similarities in patient population and domain. The developer hypothesized a positive association of scores between providers who prescribe **beta blocker therapy** on patients with coronary artery disease seen within a 12 month period and who also have a prior MI or a current or prior LVEF < 40%, and those who prescribe **beta blocker therapy** on patients with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% within a 12 month period.

- The measure chosen for the correlation analysis (NQF #0066) prescribes ACE and ARB therapy, not beta blocker therapy; however, the developer described two measures that prescribe beta blocker therapy. In addition, the developer did not discuss the relationship, if any, between this measure and patients who also have diabetes (NQF #0066).
- The Committee expressed their concerns about the low correlation results (0.22) and testing against ACE/ARB therapy in diabetes since this is a different treatment in a different population.

---

3. Feasibility: H-0; M-16; 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 clinical data and abstracted from a record by someone other than the person obtaining the original information. The developer did not discuss the time and costs associated with abstracting the measure to determine if data can be captured without undue burden.

---

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-0; M-12; L-2; I-2**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS). The measure is also used in the PINNACLE Registry ® for internal quality improvement.
- Data will be available for public reporting in Physician Compare beginning in late 2019.

---

5. Related and Competing Measures

- This measure is related to:
    - 0070e : Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)

  - 0071: Persistence of Beta-Blocker Treatment After a Heart Attack
  - 0083: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
  - 0083e : Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
  - 0117: Beta Blockade at Discharge
  - 0127: Preoperative Beta Blockade
- The Committee previously discussed related and competing measures; no new issues identified.

---

6. Standing Committee Recommendation for Endorsement: **Y-15**; **N-1**

---

7. Public and Member Comment

- No comments received

---

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

---

9. Appeals

0070e Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy

Numerator Statement: Patients who were prescribed beta-blocker therapy

Denominator Statement: All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior (within the past 3 years) MI or a current or prior LVEF <40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the health care system).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Other, Outpatient Services, Post-Acute Care

Type of Measure: Process

Data Source: Electronic Health Records

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING [6/19/2019]

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-4**; **M-11**; **L-0**; **I-0**

Rationale:

- The evidence submitted for the registry measure, NQF #0070, and discussion applies to this measure.
- The developer provided EHR performance data for 2,178 providers and 57,338 quality events from CMS's PQRS program from January 2016 to December 2016. The developer reported a mean of 0.89; median 1.00; mode 1.00; standard deviation 0.19; range 1.00; minimum 0.003; maximum 1.00; and interquartile range of 0.15 (1.00 – 0.00). The EHR average performance rate reported for the 2018 MIPS benchmark report was 74.8% and standard deviation of 23.1.

- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- Although no data on disparities from the eCQM was provided, the Committee agreed a performance gap exists.

---

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-10**; **L-1**; **I-0** 2b. Validity: **H-1**; **M-13**; **L-1**; **I-1**

Rationale:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- A Committee member expressed concern about the specifications including the documentation of a prior MI and current or prior EF <40% in outpatient medical records.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.90 for 1+ events and 0.93 for 10+ events.
- For reliability, the fact that only 32 percent of the providers in the testing data set had all the required data elements and met the minimum number of quality reporting events (10) was of major concern for the Committee. The Committee also questioned whether the availability and/or accuracy of the data elements differed across providers creating unreliable measure score results. The Committee did not reach consensus on the reliability of the measure due to the substantial feasibility issues identified. The Committee will re-vote on reliability on the post-comment call on September 24, 2019.
- The developer reported 4,440 exceptions and average number of exceptions per provider (0.6). NQF criteria for eCQMs states that if exclusions (or exceptions) are not based on the clinical evidence, analyses should identify the overall frequency of occurrence of the exclusions as well as variability across the measured entities to demonstrate the need to specify exclusions.
- The developer did not analyze the extent and distribution of missing data or nonresponse – this is required because different uses of an EHR data field by clinicians or different data processing or extraction protocols in different EHRs can result in incorrect or missing data and produce different performance scores.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0070e) and another eCQM, NQF #0083e: *Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)* (PQRS #008) due to similarities in patient population and domain. The developer hypothesized a positive association of scores between providers who prescribe beta blocker therapy on patients with coronary artery disease seen within a 12 month period and who also have a prior MI or a current or prior LVEF < 40%, and those who prescribe beta blocker therapy on patients with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% within a 12 month period.

- The developer did not discuss if there was a relationship between patients with a diagnosis of heart failure with a current or prior LVEF <40% who were prescribed beta blocker therapy at each hospital discharge per measure specifications for NQF #0083e and this eCQM (NQF #0070e).
- The Committee noted the strong positive correlation (0.91) with NQF #0083e yet was concerned that the developer did not test the extent and distribution of missing data or its impact on the measure score.

---

3. Feasibility: H-2; M-11; L-3; I-0

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

Rationale:

- The developer provided feasibility testing results from two care settings. One scorecard showed the measure is currently 43.3% feasible on a scale of 0% to 100% in the outpatient setting; the other scorecard showed the measure is 84.1% feasible in the inpatient/acute care setting.
- The feasibility testing demonstrated the following critical data elements are not currently available in a structured format within the EHRs tested:
    - Allergy/Intolerance to Beta Blocker Therapy Ingredient
    - Allergy to Beta Blocker Therapy
    - Arrhythmia Diagnosis
    - Atrioventricular Block Diagnosis
    - Beta Blocker Therapy Medication for LVSD Not Ordered
    - Beta Blocker Therapy Medication Not Ordered
    - Cardiac Pacer Device Applied
    - Cardiac Pacer in Situ
    - Ejection Fraction Diagnostic Study Performed
    - Intolerance to Beta Blocker Therapy
    - Moderate or Severe LVSD Diagnosis
    - Patient Provider Interaction Encounter and various other Encounters
- The Committee expressed their concerns about the high missing data rates. The Committee also noted the developer did not adequately address the measure's feasibility issues including the multiple critical data elements needed to calculate the measure are not available in structured data fields.

---

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-4; M-10; L-1; I-1**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS).

- The measure is not currently publicly reported, but data will be available for public reporting in Physician Compare beginning in late 2019.
- The Committee did not reach consensus on the usability of the measure due to the concerns about feasibility and how it impacts the usability of the measure. The Committee will have the option to re-vote on this criterion on the post-comment call on September 24, 2019. (Usability is not a must-pass criterion.)

---

5. Related and Competing Measures

- This measure is related to:
    - 0070: Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0071: Persistence of Beta-Blocker Treatment After a Heart Attack
    - 0083: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0384e: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0117: Beta Blockade at Discharge
    - 0127: Preoperative Beta Blockade
- The Committee previously discussed related and competing measures; no new issues identified.

---

6. Standing Committee Recommendation for Endorsement: Y – 14; N – 2

---

7. Public and Member Comment:

- No comments received

---

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

---

9. Appeals

0081 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Numerator Statement: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Denominator Statement: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., other system reasons).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Inpatient/Hospital, Other, Outpatient Services

Type of Measure: Process

Data Source: Registry Data

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/19/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-2**; **M-12**; **L-1; I-1**

Rationale:

- The developer provided the 2017 ACC/AHA/HFSA update of the 2013 ACCF/AHA Guideline for the management of heart failure (HF). The updated guideline includes revision to the sections on biomarkers; new therapies indicated for stage C HF with reduced ejection fraction (HF*r*EF); updates on HF with preserved ejection fraction (HF*p*EF); new data on important comorbidities, including sleep apnea, anemia, and hypertension; and new insights into the prevention of HF. The Committee agreed the evidence basis for the measure has not changed and did not repeat the discussion.
- The developer provided registry data from CMS's PQRS program from January 2016 to December 2016. The developer reported 14.149 quality events, mean of 0.92; standard deviation 0.15; minimum 0.17; maximum 1.00; and interquartile range 0.09 (1.00 – 0.91). The developer did not provide the number of providers used to calculate the performance rates. The Registry/QCDR average performance rate reported for the 2018 MIPS benchmark report was 87.1% and standard deviation of 11.8.

- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- Though disparities data from the measure is not available the Committee agreed the performance data demonstrates a gap in care related to heart failure patients receiving ACE, ARB, or ARNI therapy.

---

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-0**; **M-13**; **L-2**; **I-1**; 2b. Validity: **H-0**; **M-12**; **L-2**; **I-2**

<u>Rationale</u>:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- Specifications include outpatient and inpatient settings; the developer did not provide testing for both outpatient setting and inpatient/hospital setting. NQF criteria states that testing must be conducted for the measure as specified.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.84 for 1+ events and 0.82 for 10+ events. Committee members noted the inconsistency between the level of analysis and care settings and the testing provided.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0081) and another registry performance measure, NQF #0083: *Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)* (PQRS #008) due to similarities in patient population and domain.
- The Committee noted the potential threats to validity that are relevant to the measure (exclusions, meaningful differences in performance, and missing data) were not empirically assessed but agreed the correlation results (0.41) were sufficient.

---

3. Feasibility: H-2; M-11; L-2; 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)

<u>Rationale</u>:

- All data elements are in defined fields in electronic clinical data and abstracted from a record by someone other than the person obtaining the original information. The developer did not discuss the time and costs associated with abstracting the measure to determine if data can be captured without undue burden.
- The Committee noted that ejection fraction, one of the critical data elements, is more readily available in the medical record in a cardiology office than in a primary care physician's office.

4. Use and Usability

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

4a. Use: **Pass-15; No Pass-1** *4b. Usability:* **H-0; M-11; L-2; I-3**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS). The measure is also used in the PINNACLE Registry ® for internal quality improvement.
- Data will be available for public reporting in Physician Compare beginning in late 2019.
- The developer did not discuss any progress on improvement toward achieving high-quality, efficient healthcare for patients with heart failure. There was also no information on the benefits vs harms or any unexpected findings during implementation.

5. Related and Competing Measures

- This measure is related to:
    - 0066: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)
    - 0081e: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 1662: Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy
- The Committee previously discussed related and competing measures; no new issues identified.

6. Standing Committee Recommendation for Endorsement: **Y-13**; **N-3**

7. Public and Member Comment

- No comments received

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

9. Appeals

0081e Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Numerator Statement: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Denominator Statement: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g ., other system reasons).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Inpatient/Hospital, Other, Outpatient Services

Type of Measure: Process

Data Source: Electronic Health Records

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/20/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-2**; **M-10**; **L-2**; **I-2**

Rationale:

- The evidence submitted for the registry measure, NQF #0081, and discussion applies to this measure.
- The developer provided EHR performance data from CMS's PQRS program from January 2016 to December 2016. The developer reported 52,213 quality events, mean of 0.72; standard deviation 0.32; minimum 0.00; maximum 1.00; and interquartile range of 0.50 (1.00 – 0.50). The developer did not provide the number of providers used to calculate

the performance rates. The EHR/QCDR average performance rate reported for the 2018 MIPS benchmark report was 64.7% and standard deviation of 21.5.
- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- Although no data on disparities from the eCQM was provided, the Committee agreed a performance gap still exists.

---

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-10**; **L-1**; **I-0**; 2b. Validity: **H-1**; **M-13**; **L-1**; **I-1**

Rationale:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- Specifications include outpatient and inpatient settings; the developer did not provide testing for both outpatient setting and inpatient/hospital setting. NQF criteria states that testing must be conducted for the measure as specified.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.75 for 1+ events and 0.81 for 10+ events. Committee members noted the inconsistency between the level of analysis and care settings and the testing provided. They also questioned whether the availability and/or accuracy of the data elements differed across providers creating unreliable measure score results.
- The developer reported 1,304 exceptions and average number of exceptions per provider (1.04). NQF criteria for eCQMs states that if exclusions (or exceptions) are not based on the clinical evidence, analyses should identify the overall frequency of occurrence of the exclusions as well as variability across the measured entities to demonstrate the need to specify exclusions.
- The developer did not analyze the extent and distribution of missing data or nonresponse – this is required because different uses of an EHR data field by clinicians or different data processing or extraction protocols in different EHRs can result in incorrect or missing data and produce different performance scores.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0070e) and another eCQM, NQF #0083e: *Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)* due to similarities in patient population and domain. The developer hypothesized a positive relationship between the two measures. The developer reported a positive correlation (0.65) with NQF #0083e
- There was significant Committee concern that only 26% of providers in the testing data set had all the required data elements. Other Committee concerns included the difficultly capturing most of the data elements during the course of care.

3. Feasibility: H-1; M-12; 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 developer provided feasibility testing results from two care settings. One scorecard showed the measure is currently 55.0% feasible on a scale of 0% to 100% in the outpatient setting; the other scorecard showed the measure is 78.8% feasible in the inpatient/acute care setting.
- The feasibility testing demonstrated the following critical data elements are not currently available in a structured format within the EHRs tested:
    - ACE Inhibitor or ARB Medication Not Ordered
    - Allergy to ACE Inhibitor or ARB
    - Intolerance to ACE Inhibitor or ARB
    - Moderate or Severe LVSD
    - Patient Provider Interaction Encounter and various other Encounters
    - Patient Reason for ACE Inhibitor or ARB Decline
    - Renal Failure Due to ACE Inhibitor
- The Committee stated their concerns about the high missing data rates. The Committee also noted the developer did not adequately address the measure's feasibility issues including the multiple critical data elements needed to calculate the measure are not available in structured data fields. The Committee was also concerned because the eCQM is less feasible in the outpatient setting (as specified/tested) than in the inpatient/acute care setting (currently not testing in inpatient/acute care setting). The Committee did not reach consensus on the feasibility of the eCQM due to the many challenges discussed. The Committee will have the option to re-vote on this criterion on the post-comment call on September 24, 2019.

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-4 M-10; L-1; I-1**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS).
- Data will be available for public reporting in Physician Compare beginning in late 2019.
- The Committee did not reach consensus on the usability of the measure due to the concerns about feasibility and how impacts the usability of the measure. The Committee will have the option to re-vote on this criterion on the post-comment call on September 24, 2019.

5. Related and Competing Measures

- This measure is related to:
    - 0066: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0081: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 1662: Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB)
- The Committee previously discussed related and competing measures; no new issues identified.

---

6. Standing Committee Recommendation for Endorsement: **Y-14**; **N-2**

---

7. Public and Member Comment

- No comments received

---

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

---

9. Appeals

0083 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Numerator Statement: Patients who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Denominator Statement: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the healthcare system).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Inpatient/Hospital, Other, Outpatient Services

Type of Measure: Process

Data Source: Registry Data

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/20/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-1**; **M-11**; **L-2**; **I-2**

Rationale:

- For the 2016 endorsement evaluation, the developer provided the 2013 ACCF/AHA guideline for the management of heart failure (Class 1, Level A). The guideline recommends the use of 1 of the 3 beta blockers (bisoprolol, carvedilol, and sustained-release metoprolol succinate) for all patients with current or prior symptoms of HFrEF [heart failure with reduced ejection fraction], unless contraindicated, to reduce morbidity and mortality. The developers note that while there have been focused updates on the guidelines in 2014, the recommendations remain unchanged. For the current evaluation, the Committee agreed the evidence basis for the measure has not changed and did not repeat the discussion.

- The developer provided registry data from CMS's PQRS program from January 2016 to December 2016. The developer reported 15,346 quality events, mean of 0.97; standard deviation 0.10; minimum 0.00; maximum 1.00; and interquartile range 0.00 (1.00 – 1.00). The developer did not provide the number of providers used to calculate the performance rates. The Registry/QCDR average performance rate reported for the 2018 MIPS benchmark report was 91.1% and standard deviation of 8.5.
- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- The Committee discussed how the performance gap is relatively small but determined room for improvement exists due to the variation and distribution of data provided.

---

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-0**; **M-14**; **L-1**; **I-1**; 2b. Validity: **H-0**; **M-12**; **L-1**; **I-3**

Rationale:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- Specifications include outpatient and inpatient settings; developer did not provide testing for both outpatient setting and inpatient/hospital setting. NQF criteria states that testing must be conducted for the measure as specified.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.88 for 1+ events and 0.79 for 10+ events. Committee members noted the inconsistency between the level of analysis and care settings and the testing provided.
- The developer provided a correlation analysis using the performance measure scores from the EHR versions of this measure (NQF #0083e) and another eCQM, NQF #0081e: *Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)*. NQF criteria states that testing must be conducted for the measure as specified.
- The Committee agreed the correlation results (0.41) were sufficient following clarification from the developer on a submission error in which the validity testing measured eCQM data for validity testing rather than with the measure as specified. The developer further clarified that two registry measures were used to conduct the correlation analysis.

---

3. Feasibility: H-1; M-11; 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:

- All data elements are in defined fields in electronic clinical data and abstracted from a record by someone other than the person obtaining the original information. The developer did not discuss the time and costs associated with abstracting the measure to determine if data can be captured without undue burden.
- The Committee agreed the measure meets the feasibility criterion because the data elements for heart failure can be collected using numerical values for ejection fraction, diagnosis codes, or descriptive terms for LVEF.

---

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-0; M-11; L-2; I-3**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS). The measure is also used in the PINNACLE Registry ® for internal quality improvement.
- Data will be available for public reporting in Physician Compare beginning in late 2019.
- The developer did not discuss any progress on improvement toward achieving high-quality, efficient healthcare for patients with heart failure. There was also no information on the benefits vs harms or any unexpected findings during implementation yet most of the Committee voted that it met the usability criterion.

---

5. Related and Competing Measures

- This measure is related to:
    - 2438 (endorsement removed): Beta-Blocker Therapy (i.e., bisoprolol, carvedilol, or sustained-release metoprolol succinate) for LVSD Prescribed at Discharge
    - 0070/e: Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0071: Persistence of Beta-Blocker Treatment After a Heart Attack
    - 0083e: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0117: Beta Blockade at Discharge
    - 0127: Preoperative Beta Blockade
- The Committee previously discussed related and competing measures; no new issues identified.

---

6. Standing Committee Recommendation for Endorsement: **Y-14**; **N-2**

---

7. Public and Member Comment

- No comments received

---

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

---

9. Appeals

0083e Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Numerator Statement: Patients who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Denominator Statement: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the healthcare system).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Inpatient/Hospital, Other, Outpatient Services

Type of Measure: Process

Data Source: Electronic Health Records

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/20/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-1**; **M-11**; **L-2**; **I-2**

Rationale:

- The evidence submitted for the registry measure, NQF #0083, and discussion applies to this measure.
- The developer provided EHR performance data from CMS's PQRS program from January 2016 to December 2016. The developer reported 52,213 quality events, mean of 0.72; standard deviation 0.32; minimum 0.00; maximum 1.00; and interquartile range of 0.50 (1.00 – 0.50). The developer did not provide the number of providers used to calculate the performance rates. The EHR average performance rate reported for the 2018 MIPS benchmark report was 73.2% and standard deviation of 19.6.
- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- The Committee noted a performance gap but questioned whether it was due to the missing data identified in the feasibility testing.

---

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-10**; **L-1**; **I-0**; 2b. Validity: **H-2**; **M-11**; **L-1**; **I-1**

Rationale:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- Specifications include outpatient and inpatient settings; the developer did not provide testing for both outpatient setting and inpatient/hospital setting. NQF criteria states that testing must be conducted for the measure as specified.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis in the outpatient setting only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.81 for 1+ events and 0.86 for 10+ events. Committee members noted the inconsistency between the level of analysis and care settings and the testing provided. They also questioned whether the availability and/or accuracy of the data elements differed across providers creating unreliable measure score results.
- The developer reported 3,168 exceptions and average number of exceptions per provider (3.37). NQF criteria for eCQMs states that if exclusions (or exceptions) are not based on the clinical evidence, analyses should identify the overall frequency of occurrence of the exclusions as well as variability across the measured entities to demonstrate the need to specify exclusions.
- The developer did not analyze the extent and distribution of missing data or nonresponse – this is required because different uses of an EHR data field by clinicians or different data processing or extraction protocols in different EHRs can result in incorrect or missing data and produce different performance scores.

- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0083e) and another eCQM, NQF #0081e: *Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)* due to similarities in patient population and domain. The developer hypothesized a positive relationship between the two measures. The developer reported a correlation positive correlation (0.65) with NQF #0083e.
- Committee concerns included the difficultly capturing most of the data elements during the course of care and the fact that the developer did not test the extent and distribution of missing data or its impact on the measure score.

---

3. Feasibility: H-2; M-12; 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 developer provided feasibility testing results from two care settings. One scorecard showed the measure is currently 51.0% feasible on a scale of 0% to 100% in the outpatient setting; the other scorecard showed the measure is 80.0% feasible in the inpatient/acute care setting.
- The feasibility testing demonstrated the following critical data elements are not currently available in a structured format within the EHRs tested:
    - Allergy to Beta Blocker Therapy
    - Allergy/Intolerance to Beta Blocker Therapy Ingredient
    - Arrhythmia
    - Beta Blocker Therapy for LVSD Medication Not Ordered
    - Cardiac Pacer Device Applied
    - Ejection Fraction Diagnostic Study Performed
    - Encounter Performed (LTSC, HH, and Nursing Facility)
    - Intolerance to Beta Blocker Therapy
    - Moderate or Severe LVSD
    - Patient Provider Interaction Encounter and various other Encounters
- The Committee stated their concerns about the high missing data rates. The Committee also noted the developer did not adequately address the measure's feasibility issues including the multiple critical data elements needed to calculate the measure are not available in structured data fields. The Committee was also concerned because the eCQM is less feasible in the outpatient setting (as specified/tested) than in the inpatient/acute care setting (currently not testing in inpatient/acute care).

---

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-4; M-8; L-2; I-1**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS).
- Data will be available for public reporting in Physician Compare beginning in late 2019.
- The developer did not discuss any progress on improvement toward achieving high-quality, efficient healthcare for patients with heart failure. There was also no information on the benefits vs harms or any unexpected findings during implementation.
- Due to the feasibility issues identified, members of the Committee questioned the usability of the measure, yet more than half of the Committee members voted that it met the criteria for usability.

---

5. Related and Competing Measures

- This measure is related to:
    - 2438 (endorsement removed): Beta-Blocker Therapy (i.e., bisoprolol, carvedilol, or sustained-release metoprolol succinate) for LVSD Prescribed at Discharge
    - 0070/e: Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0071: Persistence of Beta-Blocker Treatment After a Heart Attack
    - 0083: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0117: Beta Blockade at Discharge
    - 0127: Preoperative Beta Blockade
- The Committee previously discussed related and competing measures; no new issues identified.

---

6. Standing Committee Recommendation for Endorsement: **Y-13**; **N-2**

---

7. Public and Member Comment

- No comments received

---

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

---

9. Appeals

NATIONAL QUALITY FORUM

Cardiovascular
Spring 2019 Review Cycle

CSAC Review and Endorsement

October 21-22, 2019

Cardiovascular Measures Portfolio

- 43 endorsed measures
  - 19 process/structure measures
  - 12 outcome measures
  - 5 composite measures
  - 4 efficiency measures

	Process/Structure	Outcome	Composite	Efficiency
Acute myocardial infarction (AMI)	5	3	1	0
Cardiac catheterization/percutaneous coronary intervention (PCI)	0	6	1	1
Coronary artery disease (CAD)/ischemic vascular disease (IVD)	6	1	1	0
Cardiac imaging	0	0	0	3
Heart failure	5	2	0	0
Hyperlipidemia	1	0	0	0
Hypertension	0	1	0	0
Implantable cardiovascular devices (ICDS)	1	0	2	0
Rhythm disorders	1	1	0	0
Survival after cardiac arrest	0	1	0	0
Total	19	15	5	4

Standing Committee Recommendations

- Six maintenance measures recommended for endorsement
  - *None reviewed by the Scientific Methods Panel (SMP)*

Overarching Issues

- Performance Gap – Disparities data
  - *A lack of disparities data from federal reporting programs for all six measures*
- Scientific Acceptability – Level of Analysis
  - *Testing inconsistent with levels of analysis and care settings for all six measures*
- Usability
  - *Lack of data provided to determine if all six measures improved the quality of healthcare over the years for patients diagnosed with heart failure*
- Feasibility, Reliability, and Validity:
  - *Feasibility assessments showed difficulty in capturing the majority of data elements during the course of care (workflow) for the three eCQMs reviewed*
  - *Concerns about the effect of feasibility results on the reliability and validity of the measures*

Overarching Issues

Process

- Inconsistent voting results for eCQMs
  - *Votes during series of measure evaluation web meetings different from or conflicted with Committee's discussion and concerns*
  - *Co-Chairs and NQF staff requested re-vote on reliability, validity, feasibility, and usability on the post-comment call*

Public and Member Comment and Member Expressions of Support

- One comment received
  - *Comment was supportive of the measure under review that did not receive consensus on reliability during the initial measure evaluation meetings*

- NQF members did not provide expressions of support

Timeline and Next Steps

Process Step	Timeline
CSAC Review Period	October 8 – October 28, 2019
CSAC In-Person Meeting	October 21 – 22, 2019
Appeals Period	October 30 – November 28, 2019

Questions?

- Project team:
  - *Melissa Mariñelarena, RN, MPA, CPHQ, Senior Director*
  - *Janaki Panchal, MSPH, Project Manager*
  - *Ameera Chaudhry, MS, Project Analyst*
- Project webpage: http://www.qualityforum.org/Cardiovascular.aspx
- Project email address: cardiovascular@qualityforum.org

Cardiovascular, Spring 2019 Review Cycle: CDP Report

DRAFT REPORT FOR CSAC REVIEW

October 21 and 22, 2019

NATIONAL QUALITY FORUM

This report is funded by the Department of Health and Human Services under contract HHSM-500-2017-00060I Task Order HHSM-500-T0001.

Contents

Cardiovascular, Spring 2019 Review Cycle

DRAFT REPORT FOR COMMENT

Executive Summary

Cardiovascular disease (CVD) is a significant burden in the United States leading to approximately 1 in 4 deaths per year.[1] Considering the effect of cardiovascular disease, measures that assess clinical care performance and patient outcomes are critical to reducing the negative impacts of CVD.

The Cardiovascular Standing Committee discussed issues related to the lack of disparities data, inconsistencies between the measure specifications and the testing provided, evidence supporting that measures used to improve patient outcomes, and multiple feasibility issues with electronic clinical quality measures (eCQMs).

For this Spring 2019 review cycle, the Standing Committee evaluated and recommended six measures undergoing maintenance review against NQF's standard evaluation criteria as follows:

- 0070 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF<40%)
- 0070e Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF<40%) eCQM
- 0081 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-NeprilysinInhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)
- 0081e Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-NeprilysinInhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD) eCQM
- 0083 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
- 0083e Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) eCQM

Brief summaries of the measures currently under review are included in the body of the report; detailed summaries of the Committee's discussion and ratings of the criteria for each measure are in Appendix A.

Introduction

The measures in the Cardiovascular portfolio have been grouped into various conditions, diseases, or procedures related to cardiovascular health. These topic areas include primary prevention and screening, coronary artery disease (CAD), ischemic vascular disease (IVD), acute myocardial infarction (AMI), cardiac catheterization, percutaneous catheterization intervention (PCI), heart failure (HF), rhythm disorders, implantable cardioverter-defibrillators (ICDs), cardiac imaging, cardiac rehabilitation, and high blood pressure. For this review cycle the following topic areas were assessed:

- Myocardial infarction
- Heart failure

NQF Portfolio of Performance Measures for Cardiovascular Conditions

The Cardiovascular Standing Committee (Appendix C) oversees NQF's portfolio of Cardiovascular measures (Appendix B) that includes measures for acute myocardial infarction (AMI), cardiac catheterization/percutaneous coronary intervention (PCI), coronary artery disease (CAD)/ischemic vascular disease (IVD), cardiac imaging, heart failure, hyperlipidemia, hypertension, implantable cardiovascular devices (ICDs), rhythm disorders, and survival after cardiac arrest. This portfolio contains 43 endorsed measures: 19 process/structure measures, 15 outcome measures, five composite measures, and four efficiency measures (see table below).

Table 1. NQF Cardiovascular Portfolio of Measures

	Process/Structure	Outcome	Composite	Efficiency
Acute myocardial infarction (AMI)	5	3	1	0
Cardiac catheterization/percutaneous coronary intervention (PCI)	0	6	1	1
Coronary artery disease (CAD)/ischemic vascular disease (IVD)	6	1	1	0
Cardiac imaging	0	0	0	3
Heart failure	5	2	0	0
Hyperlipidemia	1	0	0	0
Hypertension	0	1	0	0
Implantable cardiovascular devices (ICDS)	1	0	2	0
Rhythm disorders	1	1	0	0
Survival after cardiac arrest	0	1	0	0
Total	19	15	5	4

Additional measures have been assigned to other portfolios. These include readmission measures for AMI and HF (All Cause Admissions/Readmissions), measures for coronary artery bypass graft (CABG) (Surgery), and primary prevention measures (Prevention and Population Health).

Cardiovascular Measure Evaluation

On June 19 and 20, 2019 the Cardiovascular Standing Committee evaluated six measures undergoing maintenance review against NQF's standard measure evaluation criteria.

Table 2. Cardiovascular Measure Evaluation Summary

	Maintenance	Total
Measures under consideration	6	6
Measures recommended for endorsement	6	6
Measures where consensus is not yet reached	0	0
Reasons for not recommending	Importance – 0 Scientific Acceptability – 0 Use – 0 Overall Suitability – 0 Competing Measure – 0	

Comments Received Prior to Committee Evaluation

NQF solicits comments on endorsed measures on an ongoing basis through the Quality Positioning System (QPS). In addition, NQF solicits comments for a continuous 16-week period during each evaluation cycle via an online tool located on the project webpage. For this evaluation cycle, the commenting period opened on May 1, 2019 and closed on June 12, 2019. No comments were submitted prior to the measure evaluation meetings.

Overarching Issues

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

Disparities Data

The Committee raised concern about the lack of disparities data presented for the six measures under review. The measures are included in the Merit-based Incentive Payment System (MIPS) and were previously used in the Physician Quality Reporting System (PQRS)—both federal reporting programs. According to the developer, the programs do not provide disparities data. The Committee noted that this is a recurring problem and encourages the Centers for Medicare & Medicaid Services (CMS) to provide disparities data from the measures as specified for future review cycles.

Levels of Analysis and Care Settings

The developer specified all six measures under review for individual clinicians and clinician groups in multiple care settings; however, the testing provided is inconsistent with the measures' specifications. The level of analysis and care settings in the specifications must align with testing. The measures will be

considered for endorsement at the clinician group level of analysis and outpatient setting unless additional testing is provided.

Usability

The Committee had a lengthy discussion about the lack of data provided to determine if the six reviewed measures have improved the quality of healthcare over the years for patients diagnosed with heart failure. The Committee voiced their frustration with developers, who were the same for all six measures, for failing to provide evidence that NQF-endorsed measures are working as intended and that there are no unintended consequences. The Committee urges developers and CMS to provide additional data and evidence to show that measures improve patient outcomes.

eCQMs: Feasibility, Reliability, and Validity

The 2013 NQF eCQM Feasibility Assessment Technical Report discussed the balance between feasibility and validity/reliability and the usefulness of a measure. Data element validity and data accuracy often overlap. Data accuracy (feasibility) is intended to assess the likely "correctness" of a data element prior to formal reliability and validity testing. Feasibility testing results for the submitted eCQMs identified substantial feasibility issues with numerous data elements, including the critical data elements (numerator, denominator, exceptions) needed to calculate the measure.

The NQF eCQM report also states that quality data need to fit into the clinical workflow in order to be recorded at the point of care by authoritative sources. It is of little benefit to have the capability of capturing certain patient symptoms if it requires five clicks and three screens during a busy clinical encounter, for the end result will likely be missing data.

The feasibility assessments provided showed difficulty capturing the majority of the data elements during the course of care (workflow), and the developer did not empirically assess the extent and distribution of missing data or nonresponse.

Though the feasibility assessment is different from reliability and validity testing, the Committee had substantial concerns about the effect of the feasibility results on the reliability and validity of the measures.

Summary of Measure Evaluation

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

Myocardial Infarction

0070 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF<40%) (PCPI): Recommended

Description: Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have a prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy; **Measure Type**: Process; **Level of Analysis**: Clinician: Group/Practice,

Clinician: Individual; **Setting of Care**: Home Care, Other, Outpatient Services, Post-Acute Care; **Data Source**: Electronic Health Records, Registry Data

The Standing Committee recommended the measure for continued endorsement. The Standing Committee found no major concerns on the methodological soundness of this measure. The Committee accepted the prior high rating for this measure's evidence and agreed that there was a demonstrated performance gap; however, the Committee raised concern about missing disparities data for this measure. The Committee deemed the decrease in reliability for 10+ events compared to 1+ events insignificant and voted to pass the measure on this criterion. This measure was correlated to NQF 0066 *Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%).* This measure passed on validity; however, the Committee noted that the correlated measure was markedly different due to its testing of a different medication (ACE/ARB) for a different population (diabetic patients). Additionally, no data validating this measure were provided, despite the measure's 10-year existence. Due to this measure's use of available PQRS data, the Committee believed it was feasible. The Committee agreed that the benefits of this measure outweighed the harms, and thus the Committee passed it on use and usability.

0070e Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF<40%) eCQM (PCPI): Recommended

Description: Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have a prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy; **Measure Type**: Process; **Level of Analysis**: Clinician: Group/Practice, Clinician: Individual; **Setting of Care**: Home Care, Other, Outpatient Services, Post-Acute Care; **Data Source**: Electronic Health Records, Other

The Standing Committee recommended the measure for continued endorsement. The Committee accepted the prior high rating for this measure's evidence. The Committee agreed that there was a demonstrated performance gap but expressed concern for the fact that no disparities data were provided. For reliability, the fact that only 32 percent of the providers in the data set had all the required data elements was of major concern for the Committee. For validity, it was noted that the accuracy of the data elements used in this measure was considerably low. The Committee further discussed how this beta-blocker measure had significant accuracy and workflow issues for three critical data elements, thus questioning the feasibility of this measure. The Committee noted that validity testing to describe the amount of missing data and its impact on scores was not provided. The measure passed use since this measure has been used in the past in programs like MIPS. The Co-chairs and NQF requested the Committee re-vote on reliability, validity, feasibility, and usability due to inconsistent votes among the three eCQMs. On the post-comment call, the Committee recommended the measure for endorsement while recognizing the feasibility issues due to the variability in electronic health records.

Heart Failure

0081 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-NeprilysinInhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD) (PCPI): Recommended

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40% who were prescribed ACE inhibitor or ARB therapy either within a 12 month period when seen in the outpatient setting or at each hospital discharge; **Measure Type**: Process; **Level of Analysis**: Clinician: Group/Practice, Clinician: Individual; **Setting of Care**: Home Care, Inpatient/Hospital, Other, Outpatient Services, Post-Acute Care; **Data Source**: Electronic Health Records, Registry Data

The Standing Committee recommended the measure for continued endorsement. The Committee discussed the small difference between MIPS and performance data, indicating a performance gap. There was concern regarding the lack of disparities data. This measure passed reliability; however, the Committee noted that reliability testing used different registries—GPRO in 2015 and PQRS in 2016—and only 27 percent of providers were included in the analysis of 10+ events. Validity for this measure also passed, though there was Committee concern regarding the lack of missing-data analysis. The Committee noted that this measure was previously used in PQRS and MIPS, and therefore passed this measure on usability and use.

0081e Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-NeprilysinInhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD) eCQM (PCPI): Recommended

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40% who were prescribed ACE inhibitor or ARB therapy either within a 12 month period when seen in the outpatient setting or at each hospital discharge; **Measure Type**: Process; **Level of Analysis**: Clinician: Group/Practice, Clinician: Individual; **Setting of Care**: Home Care, Inpatient/Hospital, Other, Outpatient Services; **Data Source**: Electronic Health Records

The Standing Committee recommended the measure for continued endorsement; however, it did not reach consensus on feasibility and usability. This measure passed on performance gap, despite the absence of disparities data. This measure passed on reliability and validity; however, there was significant Committee concern about missing data/lack of missing-data analysis and how most data elements appear to lack availability and accuracy (14 of 25 data elements scored less than 3 on the eCQM scorecard). The Committee did not reach consensus on feasibility; members expressed concern about how only 26 percent of providers were included in the analysis of the measure and how only two sites were tested for feasibility. They reiterated their concerns about high missing-data rates. The measure is in use and publicly reported; therefore, the Committee did not have any concerns about use. The Committee did not reach consensus on usability due to the high rates of missing data and the potential impact on the measure; however, usability is not a must-pass criterion. The Co-Chairs and NQF staff requested the Committee re-vote on reliability, validity, feasibility, and usability due to inconsistent votes among the three eCQMs. On the post-comment call, the Committee recommended the measure

for endorsement while recognizing the feasibility issues due to the variability in electronic health records.

0083 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) (PCPI): Recommended

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40% who were prescribed beta-blocker therapy either within a 12 month period when seen in the outpatient setting or at hospital discharge; **Measure Type**: Process; **Level of Analysis**: Clinician: Group/Practice, Clinician: Individual; **Setting of Care**: Home Care, Inpatient/Hospital, Other, Outpatient Services; **Data Source**: Electronic Health Records, Registry Data

The Standing Committee recommended the measure for continued endorsement. The Committee discussed how the performance gap is relatively small, but room for improvement exists due to the variation and distribution of data provided for 2018; thus, the measure passed on performance gap. This measure passed on reliability, though the Committee did have concerns about how the level of analysis was inconsistent with the testing provided. There was also Committee concern regarding the decrease in reliability as more events were tested. This measure passed on validity following clarification from the developer on a submission error in which the validity testing measured eCQM data for correlation analysis, rather than with the measure as specified. The developer clarified that two registry measures were compared. This measure passed on feasibility since it has been in use over time and data can be collected through multiple avenues including numerical values using ejection fraction or diagnosis codes or descriptive terms for LVEF. This measure is used in MIPS and is publicly reported, and it passed use and usability.

0083e Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) eCQM (PCPI): Recommended

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge; **Measure Type**: Process; **Level of Analysis**: Clinician: Group/Practice, Clinician: Individual; **Setting of Care**: Home Care, Inpatient/Hospital, Other, Outpatient Services; **Data Source**: Electronic Health Records

The Standing Committee recommended the measure for continued endorsement. The Committee voted to pass this measure on performance gap, though no disparities data were reported, and there was some concern about how the mean was lower in this measure compared to its non-eCQM version. This measure passed on reliability and validity. The Committee discussed that reliability data reflected the feasibility of this measure and expressed how concerns for reliability, validity, and feasibility were like those of measure 0083. There was additional concern that validity was lower for this measure compared to 0083. This measure passed on feasibility; however, the Committee did express concern about missing data elements, how several data elements were rated low on availability and accuracy, and how the measure was 51 percent feasible as indicated by the eCQM scorecard. The Committee noted that on the Indiana University (IU) scorecard this measure was considered 80 percent feasible, but that scoring did not account for outpatient settings. This measure is used in MIPS and public reporting and passed the use criterion. The Co-Chairs and NQF staff requested the Committee re-vote on reliability, validity,

feasibility, and usability due to inconsistent votes among the three eCQMs. On the post-comment call, the Committee recommended the measure for endorsement while recognizing the feasibility issues due to the variability in electronic health records.

References

1 Heron M. Deaths: leading causes for 2014. *NVSS*. 2016;65(5):96.

Appendix A: Details of Measure Evaluation

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

Measures Recommended

0070 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy

Numerator Statement: Patients who were prescribed beta-blocker therapy

Denominator Statement: All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior (within the past 3 years) MI or a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the health care system).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Other, Outpatient Services, Post-Acute Care

Type of Measure: Process

Data Source: Registry Data

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/19/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-4**; **M-8**; **L-4**; **I-0**

Rationale:

- For the 2016 endorsement evaluation, the developer provided the 2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients with Stable Ischemic Heart Disease. The guideline recommended beta-blocker therapy should be started and continued for 3 years in all patients with normal LV function after MI or ACS (Class I, Level of Evidence: B); beta-blocker therapy should be used in all patients with LV systolic dysfunction (EF ≤40%) with heart failure or prior MI, unless contraindicated (Use should be

limited to carvedilol, metoprolol succinate, or bisoprolol, which have been shown to reduce risk of death.) (Class I, Level of Evidence: A). For the current evaluation, the Committee agreed the evidence basis for the measure has not changed and did not repeat the discussion. In the pre-evaluation comments, one of the Committee members noted the evidence base remains unchanged; however, there have been meta analyses suggesting that beta blocker therapy in CAD may have an "expiration date" after AMI.

- To demonstrate a performance gap, the developer provided registry data for 1,100 providers and 18,558 quality events from CMS's PQRS program from January 2016 to December 2016. The developer reported a mean of 0.92; median 1.00; mode 1.00; standard deviation 0.14; range 0.93; minimum 0.07; maximum 1.00; and interquartile range 0.13 (1.00 – 0.88). The Registry/QCDR average performance rate reported for the 2018 MIPS benchmark report was 84.2% and standard deviation of 15.2.
- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- Generally, the Committee agreed the performance data continues to warrant a national performance registry measure though no data on disparities from the measure were provided.

---

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-14**; **L-0**; **I-0**; 2b. Validity: **H-0**; **M-11**; **L-3**; **I-2**

<u>Rationale</u>:

- The levels of analysis and care settings are inconsistent with the testing provided. The level of analysis (LoA) specified are for individual clinicians and clinician groups. The care settings specified are home care, other, outpatient services, post-acute care, nursing facility visit, and care services in long-term residential facility. The LoA and care settings in the measure specifications must align with testing (clinician group and outpatient services). Additional testing is required for endorsement at the individual clinician level in home care, post-acute care, nursing facility visit, and care services in long-term residential facility.
- The Committee expressed some concerns about the specifications including the documentation of a prior MI and current or prior EF <40% in outpatient medical records.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.85 for 1+ events and 0.84 for 10+ events. One of the Committee members noted the inconsistency between the level of analysis and care settings and the testing provided.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0070) and another registry performance measure, NQF #0066: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor and Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%) (PQRS #118) due to similarities in patient population and domain. The developer hypothesized a positive association of scores between providers who prescribe **beta blocker therapy** on patients with coronary artery disease seen within a 12 month period and who also have a prior MI or a current or prior LVEF < 40%, and those who prescribe **beta blocker therapy** on patients

with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% within a 12 month period.

- The measure chosen for the correlation analysis (NQF #0066) prescribes ACE and ARB therapy, not beta blocker therapy; however, the developer described two measures that prescribe beta blocker therapy. In addition, the developer did not discuss the relationship, if any, between this measure and patients who also have diabetes (NQF #0066).
- The Committee expressed their concerns about the low correlation results (0.22) and testing against ACE/ARB therapy in diabetes since this is a different treatment in a different population.

---

3. Feasibility: H-0; M-16; 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 clinical data and abstracted from a record by someone other than the person obtaining the original information. The developer did not discuss the time and costs associated with abstracting the measure to determine if data can be captured without undue burden.

---

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-0; M-12; L-2; I-2**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS). The measure is also used in the PINNACLE Registry ® for internal quality improvement.
- Data will be available for public reporting in Physician Compare beginning in late 2019.

---

5. Related and Competing Measures

- This measure is related to:
    - 0070e : Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0071: Persistence of Beta-Blocker Treatment After a Heart Attack
    - 0083: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0083e : Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0117: Beta Blockade at Discharge
    - 0127: Preoperative Beta Blockade
- The Committee previously discussed related and competing measures; no new issues identified.

6. Standing Committee Recommendation for Endorsement: **Y-15**; **N-1**

7. Public and Member Comment

- No comments received

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

9. Appeals

0081 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Numerator Statement: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Denominator Statement: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., other system reasons).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Inpatient/Hospital, Other, Outpatient Services

Type of Measure: Process

Data Source: Registry Data

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/19/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-2**; **M-12**; **L-1; I-1**

Rationale:

- The developer provided the 2017 ACC/AHA/HFSA update of the 2013 ACCF/AHA Guideline for the management of heart failure (HF). The updated guideline includes revision to the sections on biomarkers; new therapies indicated for stage C HF with reduced ejection fraction (HF*r*EF); updates on HF with preserved ejection fraction (HF*p*EF); new data on important comorbidities, including sleep apnea, anemia, and hypertension; and new insights into the prevention of HF. The Committee agreed the evidence basis for the measure has not changed and did not repeat the discussion.

- The developer provided registry data from CMS's PQRS program from January 2016 to December 2016. The developer reported 14.149 quality events, mean of 0.92; standard deviation 0.15; minimum 0.17; maximum 1.00; and interquartile range 0.09 (1.00 – 0.91). The developer did not provide the number of providers used to calculate the performance rates. The Registry/QCDR average performance rate reported for the 2018 MIPS benchmark report was 87.1% and standard deviation of 11.8.
- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- Though disparities data from the measure is not available the Committee agreed the performance data demonstrates a gap in care related to heart failure patients receiving ACE, ARB, or ARNI therapy.

---

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-0**; **M-13**; **L-2**; **I-1**; 2b. Validity: **H-0**; **M-12**; **L-2**; **I-2**

<u>Rationale</u>:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- Specifications include outpatient and inpatient settings; the developer did not provide testing for both outpatient setting and inpatient/hospital setting. NQF criteria states that testing must be conducted for the measure as specified.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.84 for 1+ events and 0.82 for 10+ events. Committee members noted the inconsistency between the level of analysis and care settings and the testing provided.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0081) and another registry performance measure, NQF #0083: *Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)* (PQRS #008) due to similarities in patient population and domain.
- The Committee noted the potential threats to validity that are relevant to the measure (exclusions, meaningful differences in performance, and missing data) were not empirically assessed but agreed the correlation results (0.41) were sufficient.

---

3. Feasibility: H-2; M-11; L-2; 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)

<u>Rationale</u>:

- All data elements are in defined fields in electronic clinical data and abstracted from a record by someone other than the person obtaining the original information. The developer did not discuss the time and costs associated with abstracting the measure to determine if data can be captured without undue burden.

- The Committee noted that ejection fraction, one of the critical data elements, is more readily available in the medical record in a cardiology office than in a primary care physician's office.

---

4. Use and Usability

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

4a. Use: **Pass-15; No Pass-1** *4b. Usability:* **H-0; M-11; L-2; I-3**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS). The measure is also used in the PINNACLE Registry ® for internal quality improvement.
- Data will be available for public reporting in Physician Compare beginning in late 2019.
- The developer did not discuss any progress on improvement toward achieving high-quality, efficient healthcare for patients with heart failure. There was also no information on the benefits vs harms or any unexpected findings during implementation.

---

5. Related and Competing Measures

- This measure is related to:
    - 0066: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)
    - 0081e: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 1662: Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy
- The Committee previously discussed related and competing measures; no new issues identified.

---

6. Standing Committee Recommendation for Endorsement: **Y-13**; **N-3**

---

7. Public and Member Comment

- No comments received

---

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

---

9. Appeals

0081e Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Numerator Statement: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Denominator Statement: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g ., other system reasons).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Inpatient/Hospital, Other, Outpatient Services

Type of Measure: Process

Data Source: Electronic Health Records

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/20/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-2**; **M-10**; **L-2**; **I-2**

Rationale:

- The evidence submitted for the registry measure, NQF #0081, and discussion applies to this measure.
- The developer provided EHR performance data from CMS's PQRS program from January 2016 to December 2016. The developer reported 52,213 quality events, mean of 0.72; standard deviation 0.32; minimum 0.00; maximum 1.00; and interquartile range of 0.50 (1.00 – 0.50). The developer did not provide the number of providers used to calculate the performance rates. The EHR/QCDR average performance rate reported for the 2018 MIPS benchmark report was 64.7% and standard deviation of 21.5.

- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- Although no data on disparities from the eCQM was provided, the Committee agreed a performance gap still exists.

---

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-10**; **L-1**; **I-0**; 2b. Validity: **H-1**; **M-13**; **L-1**; **I-1**

<u>Rationale</u>:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- Specifications include outpatient and inpatient settings; the developer did not provide testing for both outpatient setting and inpatient/hospital setting. NQF criteria states that testing must be conducted for the measure as specified.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.75 for 1+ events and 0.81 for 10+ events. Committee members noted the inconsistency between the level of analysis and care settings and the testing provided. They also questioned whether the availability and/or accuracy of the data elements differed across providers creating unreliable measure score results.
- The developer reported 1,304 exceptions and average number of exceptions per provider (1.04). NQF criteria for eCQMs states that if exclusions (or exceptions) are not based on the clinical evidence, analyses should identify the overall frequency of occurrence of the exclusions as well as variability across the measured entities to demonstrate the need to specify exclusions.
- The developer did not analyze the extent and distribution of missing data or nonresponse – this is required because different uses of an EHR data field by clinicians or different data processing or extraction protocols in different EHRs can result in incorrect or missing data and produce different performance scores.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0070e) and another eCQM, NQF #0083e: *Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)* due to similarities in patient population and domain. The developer hypothesized a positive relationship between the two measures. The developer reported a positive correlation (0.65) with NQF #0083e
- There was significant Committee concern that only 26% of providers in the testing data set had all the required data elements. Other Committee concerns included the difficultly capturing most of the data elements during the course of care.

---

3. Feasibility: H-1; M-12; 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)

<u>Rationale</u>:

- The developer provided feasibility testing results from two care settings. One scorecard showed the measure is currently 55.0% feasible on a scale of 0% to 100% in the outpatient setting; the other scorecard showed the measure is 78.8% feasible in the inpatient/acute care setting.
- The feasibility testing demonstrated the following critical data elements are not currently available in a structured format within the EHRs tested:
    - ACE Inhibitor or ARB Medication Not Ordered
    - Allergy to ACE Inhibitor or ARB
    - Intolerance to ACE Inhibitor or ARB
    - Moderate or Severe LVSD
    - Patient Provider Interaction Encounter and various other Encounters
    - Patient Reason for ACE Inhibitor or ARB Decline
    - Renal Failure Due to ACE Inhibitor
- The Committee stated their concerns about the high missing data rates. The Committee also noted the developer did not adequately address the measure's feasibility issues including the multiple critical data elements needed to calculate the measure are not available in structured data fields. The Committee was also concerned because the eCQM is less feasible in the outpatient setting (as specified/tested) than in the inpatient/acute care setting (currently not testing in inpatient/acute care setting). The Committee did not reach consensus on the feasibility of the eCQM due to the many challenges discussed. The Committee will have the option to re-vote on this criterion on the post-comment call on September 24, 2019.

---

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-4 M-10; L-1; I-1**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS).
- Data will be available for public reporting in Physician Compare beginning in late 2019.
- The Committee did not reach consensus on the usability of the measure due to the concerns about feasibility and how impacts the usability of the measure. The Committee will have the option to re-vote on this criterion on the post-comment call on September 24, 2019.

---

5. Related and Competing Measures

- This measure is related to:
    - 0066: Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0081: Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 1662: Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB)

- The Committee previously discussed related and competing measures; no new issues identified.

6. Standing Committee Recommendation for Endorsement: **Y-14**; **N-2**

7. Public and Member Comment

- No comments received

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

9. Appeals

0083 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Numerator Statement: Patients who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Denominator Statement: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the healthcare system).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Inpatient/Hospital, Other, Outpatient Services

Type of Measure: Process

Data Source: Registry Data

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/20/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-1**; **M-11**; **L-2**; **I-2**

Rationale:

- For the 2016 endorsement evaluation, the developer provided the 2013 ACCF/AHA guideline for the management of heart failure (Class 1, Level A). The guideline recommends the use of 1 of the 3 beta blockers (bisoprolol, carvedilol, and sustained-release metoprolol succinate) for all patients with current or prior symptoms of HFrEF [heart failure with reduced ejection fraction], unless contraindicated, to reduce morbidity and mortality. The developers note that while there have been focused updates on the guidelines in 2014, the recommendations remain unchanged. For the current evaluation, the Committee agreed the evidence basis for the measure has not changed and did not repeat the discussion.
- The developer provided registry data from CMS's PQRS program from January 2016 to December 2016. The developer reported 15,346 quality events, mean of 0.97; standard deviation 0.10; minimum 0.00; maximum 1.00; and interquartile range 0.00 (1.00 – 1.00). The developer did not provide the number of providers used to calculate the performance rates. The

Registry/QCDR average performance rate reported for the 2018 MIPS benchmark report was 91.1% and standard deviation of 8.5.
- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- The Committee discussed how the performance gap is relatively small but determined room for improvement exists due to the variation and distribution of data provided.

---

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-0**; **M-14**; **L-1**; **I-1**; 2b. Validity: **H-0**; **M-12**; **L-1**; **I-3**

<u>Rationale</u>:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- Specifications include outpatient and inpatient settings; developer did not provide testing for both outpatient setting and inpatient/hospital setting. NQF criteria states that testing must be conducted for the measure as specified.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.88 for 1+ events and 0.79 for 10+ events. Committee members noted the inconsistency between the level of analysis and care settings and the testing provided.
- The developer provided a correlation analysis using the performance measure scores from the EHR versions of this measure (NQF #0083e) and another eCQM, NQF #0081e: *Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)*. NQF criteria states that testing must be conducted for the measure as specified.
- The Committee agreed the correlation results (0.41) were sufficient following clarification from the developer on a submission error in which the validity testing measured eCQM data for validity testing rather than with the measure as specified. The developer further clarified that two registry measures were used to conduct the correlation analysis.

---

3. Feasibility: H-1; M-11; 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)

<u>Rationale</u>:

- All data elements are in defined fields in electronic clinical data and abstracted from a record by someone other than the person obtaining the original information. The developer did not discuss the time and costs associated with abstracting the measure to determine if data can be captured without undue burden.
- The Committee agreed the measure meets the feasibility criterion because the data elements for heart failure can be collected using numerical values for ejection fraction, diagnosis codes, or descriptive terms for LVEF.

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-0; M-11; L-2; I-3**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS). The measure is also used in the PINNACLE Registry ® for internal quality improvement.
- Data will be available for public reporting in Physician Compare beginning in late 2019.
- The developer did not discuss any progress on improvement toward achieving high-quality, efficient healthcare for patients with heart failure. There was also no information on the benefits vs harms or any unexpected findings during implementation yet most of the Committee voted that it met the usability criterion.

5. Related and Competing Measures

- This measure is related to:
    - 2438 (endorsement removed): Beta-Blocker Therapy (i.e., bisoprolol, carvedilol, or sustained-release metoprolol succinate) for LVSD Prescribed at Discharge
    - 0070/e: Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0071: Persistence of Beta-Blocker Treatment After a Heart Attack
    - 0083e: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0117: Beta Blockade at Discharge
    - 0127: Preoperative Beta Blockade
- The Committee previously discussed related and competing measures; no new issues identified.

6. Standing Committee Recommendation for Endorsement: **Y-14**; **N-2**

7. Public and Member Comment

- No comments received

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

9. Appeals

0083e Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Numerator Statement: Patients who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

Denominator Statement: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the healthcare system).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Inpatient/Hospital, Other, Outpatient Services

Type of Measure: Process

Data Source: Electronic Health Records

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING 6/20/2019

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-1**; **M-11**; **L-2**; **I-2**

Rationale:

- The evidence submitted for the registry measure, NQF #0083, and discussion applies to this measure.
- The developer provided EHR performance data from CMS's PQRS program from January 2016 to December 2016. The developer reported 52,213 quality events, mean of 0.72; standard deviation 0.32; minimum 0.00; maximum 1.00; and interquartile range of 0.50 (1.00 – 0.50). The developer did not provide the number of providers used to calculate the performance rates. The EHR average performance rate reported for the 2018 MIPS benchmark report was 73.2% and standard deviation of 19.6.

- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.
- The Committee noted a performance gap but questioned whether it was due to the missing data identified in the feasibility testing.

---

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-10**; **L-1**; **I-0**; 2b. Validity: **H-2**; **M-11**; **L-1**; **I-1**

<u>Rationale</u>:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- Specifications include outpatient and inpatient settings; the developer did not provide testing for both outpatient setting and inpatient/hospital setting. NQF criteria states that testing must be conducted for the measure as specified.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis in the outpatient setting only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.81 for 1+ events and 0.86 for 10+ events. Committee members noted the inconsistency between the level of analysis and care settings and the testing provided. They also questioned whether the availability and/or accuracy of the data elements differed across providers creating unreliable measure score results.
- The developer reported 3,168 exceptions and average number of exceptions per provider (3.37). NQF criteria for eCQMs states that if exclusions (or exceptions) are not based on the clinical evidence, analyses should identify the overall frequency of occurrence of the exclusions as well as variability across the measured entities to demonstrate the need to specify exclusions.
- The developer did not analyze the extent and distribution of missing data or nonresponse – this is required because different uses of an EHR data field by clinicians or different data processing or extraction protocols in different EHRs can result in incorrect or missing data and produce different performance scores.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0083e) and another eCQM, NQF #0081e: *Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)* due to similarities in patient population and domain. The developer hypothesized a positive relationship between the two measures. The developer reported a correlation positive correlation (0.65) with NQF #0083e.
- Committee concerns included the difficultly capturing most of the data elements during the course of care and the fact that the developer did not test the extent and distribution of missing data or its impact on the measure score.

---

3. Feasibility: H-2; M-12; 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>:

- The developer provided feasibility testing results from two care settings. One scorecard showed the measure is currently 51.0% feasible on a scale of 0% to 100% in the outpatient setting; the other scorecard showed the measure is 80.0% feasible in the inpatient/acute care setting.
- The feasibility testing demonstrated the following critical data elements are not currently available in a structured format within the EHRs tested:
    - Allergy to Beta Blocker Therapy
    - Allergy/Intolerance to Beta Blocker Therapy Ingredient
    - Arrhythmia
    - Beta Blocker Therapy for LVSD Medication Not Ordered
    - Cardiac Pacer Device Applied
    - Ejection Fraction Diagnostic Study Performed
    - Encounter Performed (LTSC, HH, and Nursing Facility)
    - Intolerance to Beta Blocker Therapy
    - Moderate or Severe LVSD
    - Patient Provider Interaction Encounter and various other Encounters
- The Committee stated their concerns about the high missing data rates. The Committee also noted the developer did not adequately address the measure's feasibility issues including the multiple critical data elements needed to calculate the measure are not available in structured data fields. The Committee was also concerned because the eCQM is less feasible in the outpatient setting (as specified/tested) than in the inpatient/acute care setting (currently not testing in inpatient/acute care).

---

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-4; M-8; L-2; I-1**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS).
- Data will be available for public reporting in Physician Compare beginning in late 2019.
- The developer did not discuss any progress on improvement toward achieving high-quality, efficient healthcare for patients with heart failure. There was also no information on the benefits vs harms or any unexpected findings during implementation.
- Due to the feasibility issues identified, members of the Committee questioned the usability of the measure, yet more than half of the Committee members voted that it met the criteria for usability.

---

5. Related and Competing Measures

- This measure is related to:
    - 2438 (endorsement removed): Beta-Blocker Therapy (i.e., bisoprolol, carvedilol, or sustained-release metoprolol succinate) for LVSD Prescribed at Discharge
    - 0070/e: Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0071: Persistence of Beta-Blocker Treatment After a Heart Attack

- 0083: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
- 0117: Beta Blockade at Discharge
- 0127: Preoperative Beta Blockade

- The Committee previously discussed related and competing measures; no new issues identified.

---

6. Standing Committee Recommendation for Endorsement: **Y-13**; **N-2**

---

7. Public and Member Comment

- No comments received

---

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

---

9. Appeals

Measure Where Consensus Is Not Yet Reached

0070e Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)

Submission | Specifications

Description: Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy

Numerator Statement: Patients who were prescribed beta-blocker therapy

Denominator Statement: All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior (within the past 3 years) MI or a current or prior LVEF <40%

Exclusions: Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the health care system).

Adjustment/Stratification: No risk adjustment or risk stratification

Level of Analysis: Clinician : Group/Practice, Clinician : Individual

Setting of Care: Home Care, Other, Outpatient Services, Post-Acute Care

Type of Measure: Process

Data Source: Electronic Health Records

Measure Steward: PCPI Foundation

STANDING COMMITTEE MEETING [6/19/2019]

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

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

1a. Evidence: **Accepted Prior Evaluation (High)**; 1b. Performance Gap: **H-4**; **M-11**; **L-0**; **I-0**

Rationale:

- The evidence submitted for the registry measure, NQF #0070, and discussion applies to this measure.
- The developer provided EHR performance data for 2,178 providers and 57,338 quality events from CMS's PQRS program from January 2016 to December 2016. The developer reported a mean of 0.89; median 1.00; mode 1.00; standard deviation 0.19; range 1.00; minimum 0.003; maximum 1.00; and interquartile range of 0.15 (1.00 – 0.00). The EHR average performance rate reported for the 2018 MIPS benchmark report was 74.8% and standard deviation of 23.1.
- The developer noted the measure is included in a federal reporting program; however, the program does not provide data on disparities from the measure as specified.

- Although no data on disparities from the eCQM was provided, the Committee agreed a performance gap exists.

---

2. Scientific Acceptability of Measure Properties: Consensus Not Reached

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

2a. Reliability: **H-0**; **M-7**; **L-7**; **I-1** 2b. Validity: **H-1**; **M-10**; **L-4**; **I-1**

Rationale:

- Concerns about the inconsistency with the levels of analysis and care settings with the testing provided discussed for NQF #0070 apply to this measure.
- A Committee member expressed concern about the specifications including the documentation of a prior MI and current or prior EF <40% in outpatient medical records.
- The developer tested reliability at the score level as the signal-to-noise ratio using a beta-binomial model. Reliability testing was done at the clinician group level of analysis only and providers must have at least 10 eligible reporting events to be included in the calculation – this is inconsistent with the specifications. The developer reported a reliability of 0.90 for 1+ events and 0.93 for 10+ events.
- For reliability, the fact that only 32 percent of the providers in the testing data set had all the required data elements and met the minimum number of quality reporting events (10) was of major concern for the Committee. The Committee also questioned whether the availability and/or accuracy of the data elements differed across providers creating unreliable measure score results. The Committee did not reach consensus on the reliability of the measure due to the substantial feasibility issues identified. The Committee will re-vote on reliability on the post-comment call on September 24, 2019.
- The developer reported 4,440 exceptions and average number of exceptions per provider (0.6). NQF criteria for eCQMs states that if exclusions (or exceptions) are not based on the clinical evidence, analyses should identify the overall frequency of occurrence of the exclusions as well as variability across the measured entities to demonstrate the need to specify exclusions.
- The developer did not analyze the extent and distribution of missing data or nonresponse – this is required because different uses of an EHR data field by clinicians or different data processing or extraction protocols in different EHRs can result in incorrect or missing data and produce different performance scores.
- Correlation analysis was conducted for validity testing using the performance measure score on this measure (NQF #0070e) and another eCQM, NQF #0083e: *Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)* (PQRS #008) due to similarities in patient population and domain. The developer hypothesized a positive association of scores between providers who prescribe beta blocker therapy on patients with coronary artery disease seen within a 12 month period and who also have a prior MI or a current or prior LVEF < 40%, and those who prescribe beta blocker therapy on patients with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% within a 12 month period.
- The developer did not discuss if there was a relationship between patients with a diagnosis of heart failure with a current or prior LVEF <40% who were prescribed beta blocker therapy at each hospital discharge per measure specifications for NQF #0083e and this eCQM (NQF #0070e).

- The Committee noted the strong positive correlation (0.91) with NQF #0083e yet was concerned that the developer did not test the extent and distribution of missing data or its impact on the measure score.

---

3. Feasibility: H-0; M-10; L-5; I-1

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

Rationale:

- The developer provided feasibility testing results from two care settings. One scorecard showed the measure is currently 43.3% feasible on a scale of 0% to 100% in the outpatient setting; the other scorecard showed the measure is 84.1% feasible in the inpatient/acute care setting.
- The feasibility testing demonstrated the following critical data elements are not currently available in a structured format within the EHRs tested:
    - Allergy/Intolerance to Beta Blocker Therapy Ingredient
    - Allergy to Beta Blocker Therapy
    - Arrhythmia Diagnosis
    - Atrioventricular Block Diagnosis
    - Beta Blocker Therapy Medication for LVSD Not Ordered
    - Beta Blocker Therapy Medication Not Ordered
    - Cardiac Pacer Device Applied
    - Cardiac Pacer in Situ
    - Ejection Fraction Diagnostic Study Performed
    - Intolerance to Beta Blocker Therapy
    - Moderate or Severe LVSD Diagnosis
    - Patient Provider Interaction Encounter and various other Encounters
- The Committee expressed their concerns about the high missing data rates. The Committee also noted the developer did not adequately address the measure's feasibility issues including the multiple critical data elements needed to calculate the measure are not available in structured data fields.

---

4. Use and Usability

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

4a. Use: **Pass-16; No Pass-0** *4b. Usability:* **H-1; M-8; L-5; I-2 Consensus Not Reached**

Rationale:

- The measure is currently used in the Merit-based Incentive Payment System (MIPS); it was previously used in the Physician Quality Reporting System (PQRS).
- The measure is not currently publicly reported, but data will be available for public reporting in Physician Compare beginning in late 2019.
- The Committee did not reach consensus on the usability of the measure due to the concerns about feasibility and how it impacts the usability of the measure. The Committee will have the option to re-vote on this criterion on the post-comment call on September 24, 2019. (Usability is not a must-pass criterion.)

5. Related and Competing Measures

- This measure is related to:
    - 0070: Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)
    - 0071: Persistence of Beta-Blocker Treatment After a Heart Attack
    - 0083: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0384e: Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)
    - 0117: Beta Blockade at Discharge
    - 0127: Preoperative Beta Blockade
- The Committee previously discussed related and competing measures; no new issues identified.

6. Standing Committee Recommendation for Endorsement: No vote taken due to consensus not reached on reliability, a must-pass criteria.

7. Public and Member Comment

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

Appendix B: Cardiovascular Portfolio—Use in Federal Programs[a]

NQF #	Title	Federal Programs: Finalized or Implemented
0018	Controlling High Blood Pressure	Medicare Shared Savings Program (MSSP), Merit-Based Incentive Payment System (MIPS) Program , Medicaid Adult Core Set, Qualified Health Plan (QHP) Quality Rating System (QRS)
0028	Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention	MIPS, MSSP
0066	Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy - Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)	Physician Compare; MIPS
0067	Chronic Stable Coronary Artery Disease: Antiplatelet Therapy	MIPS
0068	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic	MIPS
0070/ 0070e	Coronary Artery Disease (CAD): Beta-Blocker Therapy—Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)	MIPS
0071	Persistence of Beta-Blocker Treatment After a Heart Attack	MIPS
0081/ 0081e	Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)	MIPS
0083/ 0083e	Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)	MIPS
0114	Risk-Adjusted Post-Operative Renal Failure	MIPS
0115	Risk-Adjusted Surgical Re-exploration	MIPS
0119	Risk-Adjusted Operative Mortality for CABG	MIPS
0129	Risk-Adjusted Prolonged Intubation (Ventilation)	MIPS
0130	Risk-Adjusted Deep Sternal Wound Infection Rate	MIPS
0131	Risk-Adjusted Stroke/Cerebrovascular Accident	MIPS
0229	Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following heart failure (HF) hospitalization for patients 18 and older	Hospital Compare, Hospital Inpatient Quality Reporting (IQR), Hospital Value-Based Purchasing (VBP)

[a] Per CMS Measures Inventory Tool as of 02/20/2019

NQF #	Title	Federal Programs: Finalized or Implemented
0230	Hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following acute myocardial infarction (AMI) hospitalization for patients 18 and older.	IQR, VBP
0290	Median Time to Transfer to Another Facility for Acute Coronary Intervention	Hospital Outpatient Quality Reporting (OQR)
0330	Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate (RSSR) Following Heart Failure Hospitalization	Hospital Readmission Reduction Program (HRRP)
0505	Hospital 30-Day All-Cause, Risk-Standardized Readmission Rate (RSSR) Following Acute Myocardial Infarction (AMI) Hospitalization	IQR; HRRP
0643	Cardiac Rehabilitation Patient Referral from an Outpatient Setting	MIPS
0669	Cardiac Imaging for Preoperative Risk Assessment for Non-Cardiac, Low Risk Surgery	Hospital Compare, OQR
0670	Cardiac stress imaging not meeting appropriate use criteria: Preoperative evaluation in low risk surgery patients	MIPS
0671	Cardiac stress imaging not meeting appropriate use criteria: Routine testing after percutaneous coronary intervention (PCI)	MIPS
0672	Cardiac stress imaging not meeting appropriate use criteria: Testing in asymptomatic, low risk patients	MIPS
1525	Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy	MIPS
2474	Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation	MIPS

Appendix C: Cardiovascular Standing Committee and NQF Staff

STANDING COMMITTEE

Mary George, MD, MSPH, FACS, FAHA (Co-chair)
Centers for Disease Control and Prevention (CDC)
Decatur, Georgia

Thomas Kottke, MD, MSPH (Co-chair)
Consulting Cardiologist, HealthPartners
Minneapolis, Minnesota

Carol Allred, BA
WomenHeart: The National Coalition for Women with Heart Disease
Plano, Texas

Linda Baas, PhD, RN
University of Cincinnati
Cincinnati, Ohio

Linda Briggs, DNP
George Washington University, School of Nursing
Washington, District of Columbia

Leslie Cho, MD
Cleveland Clinic
Cleveland, Ohio

Joseph Cleveland, MD
University of Colorado Denver
Aurora, Colorado

Michael Crouch, MD, MSPH, FAAFP
Texas A & M University School of Medicine
Bryan, Texas

Elizabeth DeLong, PhD
Duke University Medical Center
Durham, North Carolina

Kumar Dharmarajan, MD, MBA
Clover Health
Jersey City, New Jersey

William Downey, MD
Carolinas HealthCare System
Charlotte, North Carolina

Brian Forrest, MD
Access Healthcare Direct
Chapel Hill, North Carolina

Naftali Zvi Frankel, MS
Déclore Consulting
New York, New York

Ellen Hillegass, PT, EdD, CCS, FAACVPR, FAPTA
American Physical Therapy Association
Sandy Springs, Georgia

Thomas James, MD
Baptist Health Plan and Baptist Health Community Care
Louisville, Kentucky

Charles Mahan, PharmD, PhC, RPh
Presbyterian Healthcare Services and University of New Mexico
Albuquerque, New Mexico

Joel Marrs, Pharm.D, FCCP, FASHP, FNLA, BCPS-AQ Cardiology, BCACP, CLS
University of Colorado Anschutz Medical Campus
Aurora, Colorado

Kristi Mitchell, MPH
Avalere Health, LLC
Washington, District of Columbia

Gary Puckrein, PhD
National Minority Quality Forum
Washington, District of Columbia

Nicholas Ruggiero, MD, FACP, FACC, FSCAI, FSVM, FCPP
Thomas Jefferson University Hospital
Philadelphia, Pennsylvania

Jason Spangler, MD, MPH, FACPM
Amgen, Inc.
Washington, District of Columbia

Susan Strong
Heart Value Voice
Colorado Springs, Colorado

Mladen Vidovich, MD
University of Illinois at Chicago, Jesse Brown VA Medical Center
Chicago, Illinois

Daniel Waxman, MD, PhD, FACC
RAND, University of California, Los Angeles (UCLA)
Los Angeles, California

NQF STAFF

Elisa Munthali, MPH
Senior Vice President, Quality Measurement

Melissa Mariñelarena, RN, MPA, CPHQ
Senior Director

Ameera Chaudhry, MS
Project Analyst

Appendix D: Measure Specifications

0070 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)

STEWARD

PCPI Foundation

DESCRIPTION

Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy

TYPE

Process

DATA SOURCE

Registry Data Not applicable.

LEVEL

Clinician : Group/Practice, Clinician : Individual

SETTING

Home Care, Other, Outpatient Services, Post-Acute Care Nursing Facility Visit, Care Services in Long-Term Residential Facility

NUMERATOR STATEMENT

Patients who were prescribed beta-blocker therapy

NUMERATOR DETAILS

Time Period for Data Collection: At least once during the measurement period

Definition:

Prescribed may include prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-blocker therapy as documented in current medication list.

Beta-blocker therapy:

- For patients with prior LVEF <40%, beta-blocker therapy includes the following: bisoprolol, carvedilol, or sustained release metoprolol succinate.

- For patients with prior MI, beta-blocker therapy includes any agent within the beta-blocker drug class. As of 2015, no recommendations or evidence are cited in current stable ischemic heart disease guidelines for preferential use of specific agents.

Numerator Note: To meet the intent of the measure, the numerator quality action must be performed at the encounter at which the active diagnosis of CAD or history of cardiac surgery proxy is documented.

For Submission Criteria 1, report Quality Data Code, G9189: Beta-blocker therapy prescribed or currently being taken

For Submission Criteria 2, report CPT Category II Code, 4008F: Beta-blocker therapy prescribed or currently being taken

DENOMINATOR STATEMENT

All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior (within the past 3 years) MI or a current or prior LVEF < 40%

DENOMINATOR DETAILS

Time Period for Data Collection: 12 consecutive months

Denominator Note:

The history of cardiac surgery serves as a proxy for a diagnosis of CAD; a diagnosis is not needed if the patient has documented history of cardiac surgery. Only one of the two criteria – a diagnosis of CAD or history of cardiac surgery proxy – is required. To meet the denominator criteria, a patient must have an active diagnosis of CAD (or proxy documented) at the time of the encounter which is used to qualify for the denominator and evaluate the numerator.

The encounter used to evaluate the numerator counts as 1 of the 2 encounters required for denominator inclusion. If the patient meets the CAD diagnosis criterion, the diagnosis needs to be active only at the encounter being evaluated for the numerator action. If the patient meets the proxy of a history of cardiac surgery inclusion criterion, there should be documentation of the proxy at the encounter being evaluated for the numerator action.

Prior Myocardial Infarction (MI) – for Submission Criteria 2, prior MI is limited to those occurring within the past 3 years.

Submission Criteria 1: Patients with left ventricular systolic dysfunction (LVEF <40%)

Patients aged >= 18 years on date of encounter

AND

Diagnosis for coronary artery disease (ICD-10-CM): I20.0, I20.1, I20.8, I20.9, I24.0, I24.1, I24.8, I24.9, I25.10, I25.110, I25.111, I25.118, I25.119, I25.5, I25.6, I25.700, I25.701, I25.708, I25.709, I25.710, I25.711, I25.718, I25.719, I25.720, I25.721, I25.728, I25.729, I25.730, I25.731, I25.738, I25.739, I25.750, I25.751, I25.758, I25.759, I25.760, I25.761, I25.768, I25.769, I25.790, I25.791, I25.798, I25.799, I25.810, I25.811, I25.812, I25.82, I25.83, I25.89, I25.9, Z95.1, Z95.5, Z98.61

OR

History of cardiac surgery (CPT): 33140, 33510, 33511, 33512, 33513, 33514, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536, 92920, 92924, 92928, 92933, 92937, 92941, 92943, 92980, 92981, 92982, 92984, 92995, 92996

AND

Patient encounter during performance period – to be used for numerator evaluation (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

At least one additional patient encounter during performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITH OR WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

Left ventricular ejection fraction (LVEF) < 40%: G8694

Submission Criteria 2: Patients with a prior (within the past 3 years) myocardial infarction

Patients aged >= 18 years on date of encounter

AND

Diagnosis for coronary artery disease (ICD-10-CM): I20.0, I20.1, I20.8, I20.9, I24.0, I24.1, I24.8, I24.9, I25.10, I25.110, I25.111, I25.118, I25.119, I25.5, I25.6, I25.700, I25.701, I25.708, I25.709, I25.710, I25.711, I25.718, I25.719, I25.720, I25.721, I25.728, I25.729, I25.730, I25.731, I25.738, I25.739, I25.750, I25.751, I25.758, I25.759, I25.760, I25.761, I25.768, I25.769, I25.790, I25.791, I25.798, I25.799, I25.810, I25.811, I25.812, I25.82, I25.83, I25.89, I25.9, Z95.1, Z95.5, Z98.61

OR

History of cardiac surgery (CPT): 33140, 33510, 33511, 33512, 33513, 33514, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536, 92920, 92924, 92928, 92933, 92937, 92941, 92943, 92980, 92981, 92982, 92984, 92995, 92996

AND

Diagnosis for myocardial infarction– includes patient that had a prior (within the past 3 years) myocardial infarction (ICD-10-CM): I21.01, I21.02, I21.09, I21.11, I21.19, I21.21, I21.29, I21.3, I21.4, I21.9, I21.A1, I21.A9, I22.0, I22.1, I22.2, I22.8, I22.9, I24.1, I25.2

AND

Patient encounter during performance period – to be used for numerator evaluation (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

At least one additional patient encounter during performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITH OR WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

EXCLUSIONS

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the health care system).

EXCLUSION DETAILS

Time Period for Data Collection: During the encounter within the 12-month period

Exceptions are used to remove a patien

t from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For measure Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%), exceptions may include medical reason(s) (eg, allergy, intolerance, other medical reasons), patient reason(s) (eg, patient declined, other patient reasons), or system reason(s) (eg, other reasons attributable to the health care system) for not prescribing beta-blocker therapy. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities.

Additional details are as follows:

For Submission Criteria 1 –

Report Quality Data Code, G9190: Documentation of medical reason(s) for not prescribing beta-blocker therapy (eg, allergy, intolerance, other medical reasons).

Report Quality Data Code, G9191: Documentation of patient reason(s) for not prescribing beta-blocker therapy (eg, patient declined, other patient reasons).

Report Quality Data Code, G9192: Documentation of system reason(s) for not prescribing beta-blocker therapy (eg, other reasons attributable to the health care system).

For Submission Criteria 2 –

Append a modifier to CPT Category II Code:

4008F-1P: Documentation of medical reason(s) for not prescribing beta-blocker therapy (eg, allergy, intolerance, other medical reasons).

4008F-2P: Documentation of patient reason(s) for not prescribing beta-blocker therapy (eg, patient declined, other patient reasons).

4008F-3P: Documentation of system reason(s) for not prescribing beta-blocker therapy (eg, other reasons attributable to the health care system).

RISK ADJUSTMENT

No risk adjustment or risk stratification

STRATIFICATION

Consistent with CMS' Measures Management System Blueprint and national recommendations put forth by the IOM (now NASEM) and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, and payer.

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

This measure is comprised of two submission criteria but is intended to result in one reporting rate. The reporting rate is the aggregate of Submission Criteria 1 and Submission Criteria 2, resulting in a single performance rate. For the purposes of this measure, the single performance rate can be calculated as follows:

Performance Rate = (Numerator 1 + Numerator 2)/ [(Denominator 1 - Denominator Exceptions 1) + (Denominator 2 - Denominator Exceptions 2)]

Calculation algorithm for Submission Criteria 1: Patients with left ventricular systolic dysfunction (LVEF <40%)

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (e.g., other reasons attributable to the health care system) for not prescribing beta-blocker therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

Calculation algorithm for Submission Criteria 2: Patients with a prior (within the past 3 years) myocardial infarction

1. Find the patients who meet the initial population (ie, the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (eg, other reasons attributable to the health care system) for not prescribing beta-blocker therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure. 140560| 135810| 117446

COPYRIGHT / DISCLAIMER

0070e Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%)

STEWARD

PCPI Foundation

DESCRIPTION

Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior MI or a current or prior LVEF <40% who were prescribed beta-blocker therapy

TYPE

Process

DATA SOURCE

Electronic Health Records Not applicable.

LEVEL

Clinician : Group/Practice, Clinician : Individual

SETTING

Home Care, Other, Outpatient Services, Post-Acute Care Nursing Facility Visit, Care Services in Long-Term Residential Facility

NUMERATOR STATEMENT

Patients who were prescribed beta-blocker therapy

NUMERATOR DETAILS

Time Period for Data Collection: At least once during the measurement period

Definition:

Prescribed may include prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-blocker therapy as documented in current medication list.

Guidance:

Beta-blocker therapy:

- For patients with prior MI, beta-blocker therapy includes any agent within the beta-blocker drug class. As of 2015, no recommendations or evidence are cited in current stable ischemic heart disease guidelines for preferential use of specific agents

- For patients with prior LVEF <40%, beta-blocker therapy includes the following: bisoprolol, carvedilol, or sustained release metoprolol succinate

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

DENOMINATOR STATEMENT

All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have a prior (within the past 3 years) MI or a current or prior LVEF <40%

DENOMINATOR DETAILS

Time Period for Data Collection: 12 consecutive months

Definition:

Prior Myocardial Infarction (MI) for denominator 2 is limited to those occurring within the past 3 years.

Guidance:

The requirement of two or more visits is to establish that the eligible professional or eligible clinician has an existing relationship with the patient.

A range value should satisfy the logic requirement for 'Ejection Fraction' as long as the ranged observation value clearly meets the less than 40% threshold noted in the denominator logic. A range that is inclusive of or greater than 40% would not meet the measure requirement.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

EXCLUSIONS

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the health care system).

EXCLUSION DETAILS

Time Period for Data Collection: During the encounter within the 12-month period

Exceptions are used to remove a patient from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For measure Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%), exceptions may include medical reason(s) (eg, allergy, intolerance, other medical reasons), patient reason(s) (eg, patient declined, other patient reasons), or system reason(s) (eg, other reasons attributable to the health care system) for not prescribing beta-blocker therapy. Where examples of exceptions are included in the measure language, value sets for these examples are developed and included in the eCQM. Although this methodology does not require the external reporting of more detailed exception data, the PCPI

recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

RISK ADJUSTMENT

No risk adjustment or risk stratification

STRATIFICATION

Consistent with CMS' Measures Management System Blueprint and national recommendations put forth by the IOM (now NASEM) and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, and payer.

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

S.12. Type of score:

Rate/proportion

If other:

S.13. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.14. Calculation Algorithm/Measure Logic (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

This measure is comprised of two populations but is intended to result in one reporting rate. The reporting rate is the aggregate of Population 1 and Population 2, resulting in a single performance rate. For the purposes of this measure, the single performance rate can be calculated as follows:

Performance Rate = (Numerator 1 + Numerator 2)/ [(Denominator 1 - Denominator Exceptions 1) + (Denominator 2 - Denominator Exceptions 2)]

Calculation algorithm for Population 1: Patients with left ventricular systolic dysfunction (LVEF <40%)

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (e.g., other reasons attributable to the health care system) for not prescribing beta-blocker therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

Calculation algorithm for Population 2: Patients with a prior (within the past 3 years) myocardial infarction

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (eg, other reasons attributable to the health care system) for not prescribing beta-blocker therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure. 140560| 117446| 135810| 141015

COPYRIGHT / DISCLAIMER

0081 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

STEWARD

PCPI Foundation

DESCRIPTION

Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

TYPE

Process

DATA SOURCE

Registry Data Not applicable

LEVEL

Clinician : Group/Practice, Clinician : Individual

SETTING

Home Care, Inpatient/Hospital, Other, Outpatient Services Domiciliary, Nursing Facility

NUMERATOR STATEMENT

Patients who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

NUMERATOR DETAILS

Time Period for Data Collection: At least once during the measurement period when seen in the outpatient setting OR at each hospital discharge

Definition:

Prescribed-Outpatient setting: prescription given to the patient for ACE inhibitor or ARB or ARNI therapy at one or more visits in the measurement period OR patient already taking ACE inhibitor or ARB or ARNI therapy as documented in current medication list.

Prescribed-Inpatient setting: prescription given to the patient for ACE inhibitor or ARB or ARNI therapy at discharge OR ACE inhibitor or ARB or ARNI therapy to be continued after discharge as documented in the discharge medication list.

Numerator Note:

To meet the intent of the measure, the numerator quality action must be performed at the encounter at which the active diagnosis of heart failure is documented. Eligible clinicians who have given a prescription for or whose patient is already taking an Angiotensin-Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB) would meet performance for this measure. Other combination therapies that consist of an ACEI plus diuretic, ARB + neprilysin

inhibitor (ARNI), ARB plus diuretic, ACEI plus calcium channel blocker, ARB plus calcium channel blocker, or ARB plus calcium channel blocker plus diuretic would also meet performance for this measure.

For Submission Criteria 1 and Submission Criteria 2, report CPT Category II Code, 4010F: Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy prescribed or currently being taken

(NOTE to NQF: Based on the language revision, PCPI is requesting updated coding and descriptor.)

DENOMINATOR STATEMENT

All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

DENOMINATOR DETAILS

Time Period for Data Collection: 12 consecutive months

Denominator Note:

LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction. The LVSD may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of LVSD or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.

To meet the denominator criteria, a patient must have an active diagnosis of heart failure at the time of the encounter which is used to qualify for the denominator and evaluate the numerator.

The encounter used to evaluate the numerator counts as 1 of the 2 encounters required for denominator inclusion. If the patient meets the heart failure diagnosis criterion, the diagnosis needs to be active only at the encounter being evaluated for the numerator action.

Submission Criteria 1: Patients who were prescribed ACE inhibitor or ARB therapy within a 12-month period when seen in the outpatient setting

Patients aged >= 18 years on date of encounter

AND

Diagnosis for heart failure (ICD-10-CM): I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.814, I50.82, I50.83, I50.84, I50.89, I50.9

AND

Patient encounter during performance period – to be used for numerator evaluation (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

At least one additional patient encounter during performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304,

99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITH OR WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

Left ventricular ejection fraction (LVEF) less than 40% or documentation of moderately or severely depressed left ventricular systolic function: 3021F

Submission Criteria 2: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy at each hospital discharge

Patients aged >= 18 years on date of encounter

AND

Diagnosis for heart failure (ICD-10-CM): I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I I50.814, I50.82, I50.83, I50.84, I50.89, I50.9

AND

Patient encounter during performance period (CPT): 99238, 99239

AND

Left ventricular ejection fraction (LVEF) less than 40% or documentation of moderately or severely depressed left ventricular systolic function: 3021F

EXCLUSIONS

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., other system reasons).

EXCLUSION DETAILS

Time Period for Data Collection: During the encounter within the 12-month period

Exceptions are used to remove a patient from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For measure Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic

Dysfunction (LVSD), exceptions may include medical reason(s) (eg, hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons), patient reason(s) (eg, patient declined, other patient reasons), or system reason(s) for not prescribing an ACE inhibitor or ARB or ARNI therapy. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

Append a modifier to CPT Category II Code:

4010F-1P: Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons)

4010F-2P: Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons)

4010F-3P: Documentation of system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., other system reasons)

RISK ADJUSTMENT

No risk adjustment or risk stratification

STRATIFICATION

Consistent with CMS' Measures Management System Blueprint and recent national recommendations put forth by the IOM and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, and payer.

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

S.12. Type of score:

Rate/proportion

If other:

S.13. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.14. Calculation Algorithm/Measure Logic (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

This measure is comprised of two submission criteria but is intended to result in one reporting rate. The reporting rate is the aggregate of Submission Criteria 1 and Submission Criteria 2,

resulting in a single performance rate. For the purposes of this measure, the single performance rate can be calculated as follows:

Performance Rate = (Numerator 1 + Numerator 2)/ [(Denominator 1 - Denominator Exceptions 1) + (Denominator 2 - Denominator Exceptions 2)]

Calculation algorithm for Submission Criteria 1: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy within a 12-month period when seen in the outpatient setting

1. Find the patients who meet the initial population (ie, the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g ., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

Calculation algorithm for Submission Criteria 2: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy at each hospital discharge

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked

azotemia, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure. 140560| 135810

COPYRIGHT / DISCLAIMER

0081e Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

STEWARD

PCPI Foundation

DESCRIPTION

Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

TYPE

Process

DATA SOURCE

Electronic Health Records Not applicable

LEVEL

Clinician : Group/Practice, Clinician : Individual

SETTING

Home Care, Inpatient/Hospital, Other, Outpatient Services Domiciliary, Nursing Facility

NUMERATOR STATEMENT

Patients who were prescribed ACE inhibitor or ARB or ARNI therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

NUMERATOR DETAILS

Time Period for Data Collection: At least once during the measurement period when seen in the outpatient setting OR at each hospital discharge

Definition:

Prescribed-Outpatient setting: prescription given to the patient for ACE inhibitor or ARB or ARNI therapy at one or more visits in the measurement period OR patient already taking ACE inhibitor or ARB or ARNI therapy as documented in current medication list.

Prescribed-Inpatient setting: prescription given to the patient for ACE inhibitor or ARB or ARNI therapy at discharge OR ACE inhibitor or ARB or ARNI therapy to be continued after discharge as documented in the discharge medication list.

at discharge OR ACE inhibitor or ARB therapy to be continued after discharge as documented in the discharge medication list.

Guidance:

Eligible clinicians who have given a prescription for or whose patient is already taking an Angiotensin-Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB) would meet performance for this measure. Other combination therapies that consist of an ACEI plus

diuretic, ARB + neprilysin inhibitor (ARNI), ARB plus diuretic, ACEI plus calcium channel blocker, ARB plus calcium channel blocker, or ARB plus calcium channel blocker plus diuretic would also meet performance for this measure.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

DENOMINATOR STATEMENT

All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

DENOMINATOR DETAILS

an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Time Period for Data Collection: 12 consecutive months

Definition:

LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction.

Guidance:

To satisfy this measure, it must be reported for all heart failure patients at least once during the measurement period if seen in the outpatient setting. If the patient has an eligible inpatient discharge during the measurement period, as defined in the measure logic, it is expected to be reported at each hospital discharge.

The requirement of two or more visits is to establish that the eligible professional or eligible clinician has an existing relationship with the patient.

A range value should satisfy the logic requirement for ´Ejection Fraction´ as long as the ranged observation value clearly meets the less than 40% threshold noted in the denominator logic. A range that is inclusive of or greater than 40% would not meet the measure requirement.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

EXCLUSIONS

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g ., other system reasons).

EXCLUSION DETAILS

S.6. Denominator Statement (Brief, narrative description of the target population being measured)

All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

S.7. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data

collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Time Period for Data Collection: 12 consecutive months

Definition:

LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction.

Guidance:

To satisfy this measure, it must be reported for all heart failure patients at least once during the measurement period if seen in the outpatient setting. If the patient has an eligible inpatient discharge during the measurement period, as defined in the measure logic, it is expected to be reported at each hospital discharge.

The requirement of two or more visits is to establish that the eligible professional or eligible clinician has an existing relationship with the patient.

A range value should satisfy the logic requirement for ´Ejection Fraction´ as long as the ranged observation value clearly meets the less than 40% threshold noted in the denominator logic. A range that is inclusive of or greater than 40% would not meet the measure requirement.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

S.8. Denominator Exclusions (Brief narrative description of exclusions from the target population)

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy (e.g ., other system reasons).

S.9. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

Time Period for Data Collection: During the encounter within the 12-month period

Exceptions are used to remove a patient from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For measure

Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) or Angiotensin Receptor-Neprilysin Inhibitor (ARNI) Therapy for Left Ventricular Systolic Dysfunction (LVSD), exceptions may include medical reason(s) (eg, hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons), patient reason(s) (eg, patient declined, other patient reasons), or system reason(s) for not prescribing an ACE inhibitor or ARB or ARNI therapy. Where examples of exceptions are included in the measure language, value sets for these examples are developed and included in the eCQM. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit- readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

RISK ADJUSTMENT

No risk adjustment or risk stratification

STRATIFICATION

Consistent with CMS' Measures Management System Blueprint and recent national recommendations put forth by the IOM and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, and payer and have included these variables as recommended data elements to be collected.

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

S.12. Type of score:

Rate/proportion

If other:

S.13. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.14. Calculation Algorithm/Measure Logic (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

This measure is comprised of two populations but is intended to result in one reporting rate. The reporting rate is the aggregate of Population 1 and Population 2, resulting in a single performance rate. For the purposes of this measure, the single performance rate can be calculated as follows:

Performance Rate = (Numerator 1 + Numerator 2)/ [(Denominator 1 - Denominator Exceptions 1) + (Denominator 2 - Denominator Exceptions 2)]

Calculation algorithm for Population 1: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy within a 12-month period when seen in the outpatient setting

1. Find the patients who meet the initial population (ie, the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

Calculation algorithm for Population 2: Patients who were prescribed ACE inhibitor or ARB or ARNI therapy at each hospital discharge

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e ., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) for not prescribing ACE inhibitor or ARB or ARNI therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e ., percentage

with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure. 140560| 135810

COPYRIGHT / DISCLAIMER

0083 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

STEWARD

PCPI Foundation

DESCRIPTION

Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

TYPE

Process

DATA SOURCE

Registry Data Not applicable

LEVEL

Clinician : Group/Practice, Clinician : Individual

SETTING

Home Care, Inpatient/Hospital, Other, Outpatient Services Domiciliary, Nursing Facility

NUMERATOR STATEMENT

Patients who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

NUMERATOR DETAILS

Time Period for Data Collection: At least once during the measurement period when seen in the outpatient setting OR at each hospital discharge

Definition:

Prescribed-Outpatient setting: prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-blocker therapy as documented in current medication list.

Prescribed-Inpatient setting: prescription given to the patient for beta-blocker therapy at discharge OR beta-blocker therapy to be continued after discharge as documented in the discharge medication list.

Beta-blocker therapy: For patients with prior LVEF < 40%, beta-blocker therapy should include bisoprolol, carvedilol, or sustained release metoprolol succinate.

Numerator Note: To meet the intent of the measure, the numerator quality action must be performed at the encounter at which the active diagnosis of heart failure is documented.

For Submission Criteria 1 and Submission Criteria 2, report Quality Data Code, G8450: Beta-blocker therapy prescribed

DENOMINATOR STATEMENT

All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

DENOMINATOR DETAILS

Time Period for Data Collection: 12 consecutive months

Denominator Note:

LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction. The left ventricular systolic dysfunction may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of left ventricular systolic dysfunction or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.

To meet the denominator criteria, a patient must have an active diagnosis of heart failure at the time of the encounter which is used to qualify for the denominator and evaluate the numerator.

The encounter used to evaluate the numerator counts as 1 of the 2 encounters required for denominator inclusion. If the patient meets the heart failure diagnosis criterion, the diagnosis needs to be active only at the encounter being evaluated for the numerator action.

Submission Criteria 1: Patients who were prescribed beta-blocker therapy within a 12-month period when seen in the outpatient setting

Patients aged >= 18 years on date of encounter

AND

Diagnosis for heart failure (ICD-10-CM): I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.810, I50.811, I50.812, I50.813, I50.814, I50.82, I50.83, I50.84, I50.89, I50.9

AND

Patient encounter during performance period – to be used for numerator evaluation (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

At least one additional patient encounter during performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITH OR WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function: G8923

Submission Criteria 2: Patients who were prescribed beta-blocker therapy at each hospital discharge.

Patients aged >= 18 years on date of encounter

AND

Diagnosis for heart failure (ICD-10-CM): I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.810, I50.811, I50.812, I50.813, I50.814, I50.82, I50.83, I50.84, I50.89, I50.9

AND

Patient encounter during performance period (CPT): 99238, 99239

AND

Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function: G8923

EXCLUSIONS

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the healthcare system).

EXCLUSION DETAILS

S.6. Denominator Statement (Brief, narrative description of the target population being measured)

All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

S.7. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Time Period for Data Collection: 12 consecutive months

Denominator Note:

LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction. The left ventricular systolic dysfunction may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of left ventricular systolic dysfunction or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.

To meet the denominator criteria, a patient must have an active diagnosis of heart failure at the time of the encounter which is used to qualify for the denominator and evaluate the numerator.

The encounter used to evaluate the numerator counts as 1 of the 2 encounters required for denominator inclusion. If the patient meets the heart failure diagnosis criterion, the diagnosis needs to be active only at the encounter being evaluated for the numerator action.

Submission Criteria 1: Patients who were prescribed beta-blocker therapy within a 12-month period when seen in the outpatient setting

Patients aged >= 18 years on date of encounter

AND

Diagnosis for heart failure (ICD-10-CM): I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.814, I50.82, I50.83, I50.84, I50.89, I50.9

AND

Patient encounter during performance period – to be used for numerator evaluation (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITHOUT

Telehealth Modifier: GQ, GT, 95, POS 02

AND

At least one additional patient encounter during performance period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

WITH

Telehealth Modifier: GQ, GT, 95, POS 02

AND

Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function: G8923

Submission Criteria 2: Patients who were prescribed beta-blocker therapy at each hospital discharge.

Patients aged >= 18 years on date of encounter

AND

Diagnosis for heart failure (ICD-10-CM): I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.814, I50.82, I50.83, I50.84, I50.89, I50.9

AND

Patient encounter during performance period (CPT): 99238, 99239

AND

Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function: G8923

S.8. Denominator Exclusions (Brief narrative description of exclusions from the target population)

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the healthcare system).

S.9. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

Time Period for Data Collection: During the encounter within the 12-month period

Exceptions are used to remove a patient from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For measure Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD), exceptions may include medical reason(s) (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (e.g., other reasons attributable to the healthcare system) for not prescribing beta-blocker therapy. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

For Submission Criteria 1 and Submission Criteria 2, report Quality Data Code, G8451: Beta-Blocker Therapy for LVEF < 40% not prescribed for reasons documented by the clinician (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons, patient declined, other patient reasons, other reasons attributable to the healthcare system)

RISK ADJUSTMENT

No risk adjustment or risk stratification

STRATIFICATION

Consistent with CMS' Measures Management System Blueprint and national recommendations put forth by the IOM (now NASEM) and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, and payer.

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

S.12. Type of score:

Rate/proportion

If other:

S.13. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.14. Calculation Algorithm/Measure Logic (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

This measure is comprised of two submission criteria but is intended to result in one reporting rate. The reporting rate is the aggregate of Submission Criteria 1 and Submission Criteria 2, resulting in a single performance rate. For the purposes of this measure, the single performance rate can be calculated as follows:

Performance Rate = (Numerator 1 + Numerator 2)/ [(Denominator 1 - Denominator Exceptions 1) + (Denominator 2 - Denominator Exceptions 2)]

Calculation algorithm for Submission Criteria 1: Patients who were prescribed beta-blocker therapy within a 12-month period when seen in the outpatient setting

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (e.g., other reasons attributable to the healthcare system) for not

prescribing beta-blocker therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. -- Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

Calculation algorithm for Submission Criteria 2: Patients who were beta-blocker therapy at each hospital discharge

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (e.g., other reasons attributable to the healthcare system) for not prescribing beta-blocker therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. -- Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure. 140560| 135810

COPYRIGHT / DISCLAIMER

0083e Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

STEWARD

PCPI Foundation

DESCRIPTION

Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

TYPE

Process

DATA SOURCE

Electronic Health Records Not applicable

LEVEL

Clinician : Group/Practice, Clinician : Individual

SETTING

Home Care, Inpatient/Hospital, Other, Outpatient Services Domiciliary, Nursing Facility

NUMERATOR STATEMENT

Patients who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting OR at each hospital discharge

NUMERATOR DETAILS

Time Period for Data Collection: At least once during the measurement period when seen in the outpatient setting OR at each hospital discharge

Definition:

Prescribed-Outpatient setting: prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-blocker therapy as documented in current medication list.

Prescribed-Inpatient setting: prescription given to the patient for beta-blocker therapy at discharge OR beta-blocker therapy to be continued after discharge as documented in the discharge medication list.

Guidance:

Beta-blocker therapy: For patients with prior LVEF < 40%, beta-blocker therapy should include bisoprolol, carvedilol, or sustained release metoprolol succinate.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

DENOMINATOR STATEMENT

All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%

DENOMINATOR DETAILS

Time Period for Data Collection: 12 consecutive months

Definition:

LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction.

Guidance:

A range value should satisfy the logic requirement for ´Ejection Fraction´ as long as the ranged observation value clearly meets the less than 40% threshold noted in the denominator logic. A range that is inclusive of or greater than 40% would not meet the measure requirement.

To satisfy this measure, it must be reported for all heart failure patients at least once during the measurement period if seen in the outpatient setting. If the patient has an eligible inpatient discharge during the measurement period, as defined in the measure logic, it is expected to be reported at each hospital discharge.

The requirement of two or more visits is to establish that the eligible professional or eligible clinician has an existing relationship with the patient

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

EXCLUSIONS

Denominator Exceptions:

Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons).

Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons).

Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the healthcare system).

EXCLUSION DETAILS

Time Period for Data Collection: During the encounter within the 12-month period

Exceptions are used to remove a patient from the denominator of a performance measure when the patient does not receive a therapy or service AND that therapy or service would not be appropriate due to patient-specific reasons. The patient would otherwise meet the denominator criteria. Exceptions are not absolute, and are based on clinical judgment, individual patient characteristics, or patient preferences. The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For measure Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD), exceptions may include medical reason(s) (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an

intravenous positive inotropic agent, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (e.g., other reasons attributable to the healthcare system) for not prescribing beta-blocker therapy. Where examples of exceptions are included in the measure language, value sets for these examples are developed and included in the eCQM. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement.

HQMF eCQM developed and is attached to this submission in fields S.2a and S.2b.

RISK ADJUSTMENT

No risk adjustment or risk stratification

STRATIFICATION

Consistent with CMS' Measures Management System Blueprint and recent national recommendations put forth by the IOM and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, and payer and have included these variables as recommended data elements to be collected.

TYPE SCORE

Rate/proportion better quality = higher score

ALGORITHM

This measure is comprised of two populations but is intended to result in one reporting rate. The reporting rate is the aggregate of Population 1 and Population 2, resulting in a single performance rate. For the purposes of this measure, the single performance rate can be calculated as follows:

Performance Rate = (Numerator 1 + Numerator 2)/ [(Denominator 1 - Denominator Exceptions 1) + (Denominator 2 - Denominator Exceptions 2)]

Calculation algorithm for Population 1: Patients who were prescribed beta-blocker therapy within a 12-month period when seen in the outpatient setting

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions

have been specified [for this measure: medical reason(s) (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (e.g., other reasons attributable to the healthcare system) for not prescribing beta-blocker therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. -- Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

Calculation algorithm for Population 2: Patients who were beta-blocker therapy at each hospital discharge

1. Find the patients who meet the initial population (i.e., the general group of patients that a set of performance measures is designed to address).

2. From the patients within the initial population criteria, find the patients who qualify for the denominator (i.e., the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial population and denominator are identical.

3. From the patients within the denominator, find the patients who meet the numerator criteria (i.e., the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator.

4. From the patients who did not meet the numerator criteria, determine if the provider has documented that the patient meets any criteria for exception when denominator exceptions have been specified [for this measure: medical reason(s) (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons), patient reason(s) (e.g., patient declined, other patient reasons), or system reason(s) (e.g., other reasons attributable to the healthcare system) for not prescribing beta-blocker therapy]. If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. -- Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (i.e., percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure. 140560| 135810

COPYRIGHT / DISCLAIMER

National Quality Forum
1030 15th St NW, Suite 800
Washington, DC 20005
http://www.qualityforum.org

ISBN