



## Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

### Brief Measure Information

**NQF #:** 0079

**Corresponding Measures:**

**Measure Title:** Heart Failure: Left Ventricular Ejection Fraction Assessment (Outpatient Setting)

**Measure Steward:**

**sp.02. Brief Description of Measure:** Percentage of patients aged 18 years and older with a diagnosis of heart failure for whom the quantitative or qualitative results of a recent or prior (any time in the past) LVEF assessment is documented within a 12 month period.

**1b.01. Developer Rationale:** This measure is aimed at improving the number of patients with heart failure who receive an evaluation of their LVEF.

Measurement of LVEF in heart failure patients is key to the implementation of therapeutic interventions demonstrated to slow disease progression and improve outcomes in patients with left ventricular systolic dysfunction.

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**sp.12. Numerator Statement:** Patients for whom the quantitative or qualitative results of a recent or prior (any time in the past) LVEF assessment is documented\* within a 12 month period.

\*Documentation must include documentation in a progress note of the results of an LVEF assessment, regardless of when the evaluation of ejection fraction was performed.

Qualitative results correspond to numeric equivalents as follows:

Hyperdynamic: corresponds to LVEF greater than 70%

Normal: corresponds to LVEF 50% to 70% (midpoint 60%)

Mild dysfunction: corresponds to LVEF 40% to 49% (midpoint 45%)

Moderate dysfunction: corresponds to LVEF 30% to 39% (midpoint 35%)

Severe dysfunction: corresponds to LVEF less than 30%

**sp.14. Denominator Statement:** All patients aged 18 years and older with a diagnosis of heart failure.

**sp.16. Denominator Exclusions:** None.

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**Measure Type:** Process

**sp.28. Data Source:**

Registry Data

**sp.07. Level of Analysis:**

Clinician: Individual

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**IF Endorsement Maintenance – Original Endorsement Date:** 2009-08-10 12:00 AM

**Most Recent Endorsement Date:** 2/19/2016 1:55:01 PM

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**IF this measure is included in a composite, NQF Composite#/title:**

**IF this measure is paired/grouped, NQF#/title:**

**sp.03. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?:**

## 1. Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria

**1ma.01. Indicate whether there is new evidence about the measure since the most recent maintenance evaluation. If yes, please briefly summarize the new evidence, and ensure you have updated entries in the Evidence section as needed.**

[Response Begins]

[Response Ends]

Please separate added or updated information from the most recent measure evaluation within each question response in the Importance to Measure and Report: Evidence section. For example:

**2021 Submission:**

Updated evidence information here.

**2018 Submission:**

Evidence from the previous submission here.

**1a.01. Provide a logic model.**

*Briefly describe the steps between the healthcare structures and processes (e.g., interventions, or services) and the patient's health outcome(s). The relationships in the diagram should be easily understood by general, non-technical audiences. Indicate the structure, process or outcome being measured.*

[Response Begins]

[Response Ends]

**1a.02. Select the type of source for the systematic review of the body of evidence that supports the performance measure.**

*A systematic review is a scientific investigation that focuses on a specific question and uses explicit, prespecified scientific methods to identify, select, assess, and summarize the findings of similar but separate studies. It may include a quantitative synthesis (meta-analysis), depending on the available data.*

[Response Begins]

[Response Ends]

If the evidence is not based on a systematic review, skip to the end of the section and do not complete the repeatable question group below. If you wish to include more than one systematic review, add additional tables by clicking "Add" after the final question in the group.

**Evidence - Systematic Reviews Table (Repeatable)**

Group 1 - Evidence - Systematic Reviews Table

**1a.03. Provide the title, author, date, citation (including page number) and URL for the systematic review.**

[Response Begins]

[Response Ends]

**1a.04. Quote the guideline or recommendation verbatim about the process, structure or intermediate outcome being measured. If not a guideline, summarize the conclusions from the systematic review.**

[Response Begins]

[Response Ends]

**1a.05. Provide the grade assigned to the evidence associated with the recommendation, and include the definition of the grade.**

[Response Begins]

[Response Ends]

**1a.06. Provide all other grades and definitions from the evidence grading system.**

[Response Begins]

[Response Ends]

**1a.07. Provide the grade assigned to the recommendation, with definition of the grade.**

[Response Begins]

[Response Ends]

**1a.08. Provide all other grades and definitions from the recommendation grading system.**

[Response Begins]

[Response Ends]

**1a.09. Detail the quantity (how many studies) and quality (the type of studies) of the evidence.**

[Response Begins]

[Response Ends]

**1a.10. Provide the estimates of benefit, and consistency across studies.**

[Response Begins]

[Response Ends]

**1a.11. Indicate what, if any, harms were identified in the study.**

[Response Begins]

[Response Ends]

**1a.12. Identify any new studies conducted since the systematic review, and indicate whether the new studies change the conclusions from the systematic review.**

[Response Begins]

[Response Ends]

**1a.13. If source of evidence is NOT from a clinical practice guideline, USPSTF, or systematic review, describe the evidence on which you are basing the performance measure.**

[Response Begins]

[Response Ends]

**1a.14. Briefly synthesize the evidence that supports the measure.**

[Response Begins]

[Response Ends]

**1a.15. Detail the process used to identify the evidence.**

[Response Begins]

[Response Ends]

**1a.16. Provide the citation(s) for the evidence.**

[Response Begins]

[Response Ends]

**1b.01. Briefly explain the rationale for this measure.**

*Explain how the measure will improve the quality of care, and list the benefits or improvements in quality envisioned by use of this measure.*

[Response Begins]

This measure is aimed at improving the number of patients with heart failure who receive an evaluation of their LVEF.

Measurement of LVEF in heart failure patients is key to the implementation of therapeutic interventions demonstrated to slow disease progression and improve outcomes in patients with left ventricular systolic dysfunction.

[Response Ends]

**1b.02. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis.**

*Include mean, std dev, min, max, interquartile range, and scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include. This information also will be used to address the sub-criterion on improvement (4b) under Usability and Use.*

[Response Begins]

2013 performance data from the Pinnacle registry.

Overall mean performance on this measure is 67.8%, with a standard deviation of 32.0%. The minimum score equals 0.00%, while the maximum score equals 100.00%. The interquartile score is equal to 49.6%.

2,254 providers were measured, and the patient study sample equals 409,332. 55.8% of the sample is male. 89.5% of the sample is white, 8.7% is black, and 1.9% identified as "other." The sample reached across all US regions, with 14.9% of providers in the Northeast, 30.7% of providers in the Midwest, 37.4% of providers in the South, and 17.1% of providers in the West.

Mean

Decile 1 4.0%

Decile 2 23.5%

Decile 3 44.5%

Decile 4 62.3%

Decile 5 75.5%

Decile 6 84.9%

Decile 7 90.6%

Decile 8 94.7%

Decile 9 97.7%

Decile 10 99.7%

2014 performance data from the Pinnacle registry.

Overall mean performance on this measure is 72.5%, with a standard deviation of 29.9%. The minimum score equals 0.00%, while the maximum score equals 100.00%. The interquartile score is equal to 41.6%.

2,219 providers were measured, and the patient study sample equals 404,406. 55.7% of the sample is male. 90.4% of the sample is white, 7.2% is black, and 2.4% identified as "other." The sample reached across all US regions, with 15.1% of providers in the Northeast, 24.5% of providers in the Midwest, 42.0% of providers in the South, and 18.5 % of providers in the West.

Mean

Decile 1 7.2%

Decile 2 34.7%

Decile 3 54.4%

Decile 4 69.9%

Decile 5 82.1%

Decile 6 89.4%

Decile 7 93.1%

Decile 8 95.9%

Decile 9 98.0%

Decile 10 99.7%

**[Response Ends]**

**1b.03. If no or limited performance data on the measure as specified is reported above, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement. Include citations.**

**[Response Begins]**

A 2003 study analyzing the quality of health care in the U.S. found that only 35.25% of participants with congestive heart failure who were beginning medical treatment received an evaluation of their LVEF within 1 month of the start of treatment.(1) For patients hospitalized with heart failure, a study analyzing data from 223 hospitals participating in the Acute Decompensated Heart Failure National Registry (ADHERE) between July 2002 and December 2003 found that left ventricular function assessment was documented in 84% of the 69,069 eligible admissions. Variability among participating hospitals was significant with rates at individual hospitals varying from 14 to 100%.(2)

(1)Appendix to McGlynn EA, Asch SM, Adams J, et al. The quality of health care delivered to adults in the United States. N Engl J Med. 2003;348:2635-2645.

(2)Fonarow GC, Yancy CW, Heywood JT. Adherence to heart failure quality-of-care indicators in US hospitals: analysis of the ADHERE Registry. Arch Intern Med. 2005; 165: 1469–1477.

**[Response Ends]**

**1b.04. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability.**

*Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included. Include mean, std dev, min, max, interquartile range, and scores by decile. For measures that show high levels of performance, i.e., “topped out”, disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b) under Usability and Use.*

**[Response Begins]**

We examined variation in provider performance on this measure based on sex, age, race and a number of other patient factors to identify variations. The findings are represented for 2013 and 2014 respectively.

To view the tables in formatted fashion, see testing form Section 2b5.1 page 14.

2013

2013 stratified descriptive statistics of performance rate from Pinnacle Registry.

Male

# of providers: 2250  
# of patients: 228280  
Minimum: 0.00%  
Lower Quartile: 47.6%  
Mean: 69.3%  
Upper Quartile: 95.5%  
Maximum: 100%  
Quartile Range: 47.8%  
Std Dev: 31.8%

Female

# of providers: 2250  
# of patients: 180550  
Minimum: 0.00%

Lower Quartile: 41.0%  
Mean: 66.2%  
Upper Quartile: 94.4%  
Maximum: 100%  
Quartile Range: 53.4%  
Std Dev: 32.8%

Age: <60  
# of providers: 2236  
# of patients: 77884  
Minimum: 0.00%  
Lower Quartile: 42.0%  
Mean: 66.1%  
Upper Quartile: 94.4%  
Maximum: 100%  
Quartile Range: 52.4%  
Std Dev: 33.3%

Age: 60 -< 70  
# of providers: 2246  
# of patients: 96129  
Minimum: 0.00%  
Lower Quartile: 46.3%  
Mean: 68.4%  
Upper Quartile: 96.4%  
Maximum: 100%  
Quartile Range: 50.1%  
Std Dev: 33.0%

Age: 70 -< 80  
# of providers: 2253  
# of patients: 120506  
Minimum: 0.00%  
Lower Quartile: 46.8%  
Mean: 69.4%  
Upper Quartile: 96.9%  
Maximum: 100%  
Quartile Range: 50.1%  
Std Dev: 32.8%

Age: >= 80  
# of providers: 2243  
# of patients: 114813  
Minimum: 0.00%  
Lower Quartile: 42.9%  
Mean: 67.3%  
Upper Quartile: 96.0%  
Maximum: 100%  
Quartile Range: 53.1%  
Std Dev: 33.4%

Insurance: None  
# of providers: 69

# of patients: 311  
Minimum: 0.00%  
Lower Quartile: 25.0%  
Mean: 69.1%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 75.0%  
Std Dev: 42.7%

Insurance: Private  
# of providers: 596  
# of patients: 33938  
Minimum: 0.00%  
Lower Quartile: 33.3%  
Mean: 64.4%  
Upper Quartile: 97.1%  
Maximum: 100%  
Quartile Range: 63.8%  
Std Dev: 35.7%

Insurance: Medicaid  
# of providers: 382  
# of patients: 13596  
Minimum: 0.00%  
Lower Quartile: 28.6%  
Mean: 60.0%  
Upper Quartile: 90.2%  
Maximum: 100%  
Quartile Range: 61.6%  
Std Dev: 35.6%

Insurance: Medicare  
# of providers: 23  
# of patients: 107  
Minimum: 0.00%  
Lower Quartile: 0.00%  
Mean: 47.6%  
Upper Quartile: 91.7%  
Maximum: 100%  
Quartile Range: 91.7%  
Std Dev: 44.2%

Insurance: Other  
# of providers: 76  
# of patients: 204  
Minimum: 0.00%  
Lower Quartile: 50.0%  
Mean: 76.3%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 50.0%  
Std Dev: 36.3%

Race: White  
# of providers: 1479  
# of patients: 202768  
Minimum: 0.00%  
Lower Quartile: 50.8%  
Mean: 71.2%  
Upper Quartile: 96.9%  
Maximum: 100%  
Quartile Range: 46.1%  
Std Dev: 31.4%

Race: Black  
# of providers: 1267  
# of patients: 19665  
Minimum: 0.00%  
Lower Quartile: 48.6%  
Mean: 70.5%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 51.4%  
Std Dev: 36.3%

Race: Other  
# of providers: 842  
# of patients: 4211  
Minimum: 0.00%  
Lower Quartile: 33.3%  
Mean: 67.2%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 66.7%  
Std Dev: 40.6%

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2014

2014 stratified descriptive statistics of performance rate from Pinnacle Registry.

Male  
# of providers: 2214  
# of patients: 224353  
Minimum: 0.00%  
Lower Quartile: 56.6%  
Mean: 73.8%  
Upper Quartile: 96.6%  
Maximum: 100%  
Quartile Range: 39.9%  
Std Dev: 29.5%

Female  
# of providers: 2214  
# of patients: 178353  
Minimum: 0.00%

Lower Quartile: 51.2%  
Mean: 71.1%  
Upper Quartile: 95.6%  
Maximum: 100%  
Quartile Range: 44.4%  
Std Dev: 30.7%

Age: <60  
# of providers: 2203  
# of patients: 76319  
Minimum: 0.00%  
Lower Quartile: 50.0%  
Mean: 70.1%  
Upper Quartile: 95.7%  
Maximum: 100%  
Quartile Range: 45.7%  
Std Dev: 31.3%

Age: 60 -< 70  
# of providers: 2213  
# of patients: 95585  
Minimum: 0.00%  
Lower Quartile: 54.5%  
Mean: 72.6%  
Upper Quartile: 97.3%  
Maximum: 100%  
Quartile Range: 42.8%  
Std Dev: 31.1%

Age: 70 -< 80  
# of providers: 2216  
# of patients: 120341  
Minimum: 0.00%  
Lower Quartile: 58.4%  
Mean: 74.4%  
Upper Quartile: 97.9%  
Maximum: 100%  
Quartile Range: 39.6%  
Std Dev: 30.3%

Age: >= 80  
# of providers: 2217  
# of patients: 112161  
Minimum: 0.00%  
Lower Quartile: 52.6%  
Mean: 72.2%  
Upper Quartile: 97.1%  
Maximum: 100%  
Quartile Range: 44.5%  
Std Dev: 31.0%

Insurance: None  
# of providers: 53

# of patients: 236  
Minimum: 0.00%  
Lower Quartile: 0.00%  
Mean: 67.2%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 100%  
Std Dev: 45.5%

Insurance: Private  
# of providers: 586  
# of patients: 39659  
Minimum: 0.00%  
Lower Quartile: 54.2%  
Mean: 73.7%  
Upper Quartile: 99.1%  
Maximum: 100%  
Quartile Range: 45.0%  
Std Dev: 30.5%

Insurance: Medicaid  
# of providers: 342  
# of patients: 9930  
Minimum: 0.00%  
Lower Quartile: 50.0%  
Mean: 69.3%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 50.0%  
Std Dev: 33.7%

Insurance: Medicare  
# of providers: 24  
# of patients: 112  
Minimum: 0.00%  
Lower Quartile: 20.0%  
Mean: 63.1%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 80.0%  
Std Dev: 40.7%

Insurance: Other  
# of providers: 55  
# of patients: 116  
Minimum: 0.00%  
Lower Quartile: 0.00%  
Mean: 65.4%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 100%  
Std Dev: 42.8%

Race: White  
# of providers: 1248  
# of patients: 186216  
Minimum: 0.00%  
Lower Quartile: 58.0%  
Mean: 74.2%  
Upper Quartile: 97.5%  
Maximum: 100%  
Quartile Range: 39.4%  
Std Dev: 30.4%

Race: Black  
# of providers: 1070  
# of patients: 14849  
Minimum: 0.00%  
Lower Quartile: 50.0%  
Mean: 72.1%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 50.0%  
Std Dev: 35.9%

Race: Other  
# of providers: 761  
# of patients: 4932  
Minimum: 0.00%  
Lower Quartile: 50.0%  
Mean: 71.7%  
Upper Quartile: 100%  
Maximum: 100%  
Quartile Range: 50.0%  
Std Dev: 38.4%

The 2013 National Healthcare Disparities Report showed that disparities in care for heart failure exist across populations. [1]

Based on data collected by AHRQ, from 2001 to 2010, the hospitalization rate for congestive heart failure decreased significantly overall and for each racial/ethnic and area income group. Although the quality of care improved overall, the following trends were observed.

- In all years, Blacks had higher rates of admission for congestive heart failure compared with Whites while APIs had lower rates than Whites.
- In all years, residents of the highest area income quartile had lower rates than residents of the two lower area income quartiles.
- The 2008 top 4 State achievable benchmark for congestive heart failure admissions was 195 per 100,000 population. At current rates of improvement, Whites could achieve the benchmark in 6 years. APIs, Hispanics, and Blacks could achieve the benchmark in 1, 4, and 9 years, respectively. Residents of the lowest income quartile would need 13 years while residents of other income quartiles could achieve the benchmark in 7 years.

[1] Agency for Healthcare Research and Quality. 2013 National Healthcare Disparities Report.  
<http://www.ahrq.gov/research/findings/nhqrdr/nhdr13/2013nhdr.pdf>. Published May 2014.

**[Response Ends]**

**1b.05. If no or limited data on disparities from the measure as specified is reported above, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in above.**

**[Response Begins]**

**[Response Ends]**

## 2. Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.

**spma.01. Indicate whether there are changes to the specifications since the last updates/submission. If yes, update the specifications in the Measure Specifications section of the Measure Submission Form, and explain your reasoning for the changes below.**

[Response Begins]

[Response Ends]

**spma.02. Briefly describe any important changes to the measure specifications since the last measure update and provide a rationale.**

For annual updates, please explain how the change in specifications affects the measure results. If a material change in specification is identified, data from re-testing of the measure with the new specifications is required for early maintenance review.

*For example, specifications may have been updated based on suggestions from a previous NQF CDP review.*

[Response Begins]

For endorsement maintenance, we are not including e-measure specifications as we did in the previous submission cycle. We have updated the measure specifications to include the applicable CPT and ICD-10 codes.

[Response Ends]

**sp.01. Provide the measure title.**

*Measure titles should be concise yet convey who and what is being measured (see [What Good Looks Like](#)).*

[Response Begins]

Heart Failure: Left Ventricular Ejection Fraction Assessment (Outpatient Setting)

[Response Ends]

**sp.02. Provide a brief description of the measure.**

*Including type of score, measure focus, target population, timeframe, (e.g., Percentage of adult patients aged 18-75 years receiving one or more HbA1c tests per year).*

[Response Begins]

Percentage of patients aged 18 years and older with a diagnosis of heart failure for whom the quantitative or qualitative results of a recent or prior (any time in the past) LVEF assessment is documented within a 12 month period.

[Response Ends]

**sp.04. Check all the clinical condition/topic areas that apply to your measure, below.**

*Please refrain from selecting the following answer option(s). We are in the process of phasing out these answer options and request that you instead select one of the other answer options as they apply to your measure.*

*Please do not select:*

- *Surgery: General*

**[Response Begins]**

Cardiovascular

**[Response Ends]**

**sp.05. Check all the non-condition specific measure domain areas that apply to your measure, below.**

**[Response Begins]**

**[Response Ends]**

**sp.06. Select one or more target population categories.**

*Select only those target populations which can be stratified in the reporting of the measure's result.*

*Please refrain from selecting the following answer option(s). We are in the process of phasing out these answer options and request that you instead select one of the other answer options as they apply to your measure.*

*Please do not select:*

- *Populations at Risk: Populations at Risk*

**[Response Begins]**

Elderly (Age >= 65)

**[Response Ends]**

**sp.07. Select the levels of analysis that apply to your measure.**

*Check ONLY the levels of analysis for which the measure is SPECIFIED and TESTED.*

*Please refrain from selecting the following answer option(s). We are in the process of phasing out these answer options and request that you instead select one of the other answer options as they apply to your measure.*

*Please do not select:*

- *Clinician: Clinician*
- *Population: Population*

**[Response Begins]**

Clinician: Individual

**[Response Ends]**

**sp.08. Indicate the care settings that apply to your measure.**

*Check ONLY the settings for which the measure is SPECIFIED and TESTED.*

**[Response Begins]**

Outpatient Services

**[Response Ends]**

**sp.09. Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials.**

*Do not enter a URL linking to a home page or to general information. If no URL is available, indicate "none available".*

**[Response Begins]**

<http://www.ama-assn.org/ama1/pub/upload/mm/pcpi/hfset-12-5.pdf>

**[Response Ends]**

**sp.11. Attach the data dictionary, code table, or value sets (and risk model codes and coefficients when applicable). Excel formats (.xlsx or .csv) are preferred.**

*Attach an excel or csv file; if this poses an issue, [contact staff](#). Provide descriptors for any codes. Use one file with multiple worksheets, if needed.*

**[Response Begins]**

No data dictionary/code table – all information provided in the submission form

**[Response Ends]**

**sp.12. State the numerator.**

*Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome).*

*DO NOT include the rationale for the measure.*

**[Response Begins]**

Patients for whom the quantitative or qualitative results of a recent or prior (any time in the past) LVEF assessment is documented\* within a 12 month period.

\*Documentation must include documentation in a progress note of the results of an LVEF assessment, regardless of when the evaluation of ejection fraction was performed.

Qualitative results correspond to numeric equivalents as follows:

Hyperdynamic: corresponds to LVEF greater than 70%

Normal: corresponds to LVEF 50% to 70% (midpoint 60%)

Mild dysfunction: corresponds to LVEF 40% to 49% (midpoint 45%)

Moderate dysfunction: corresponds to LVEF 30% to 39% (midpoint 35%)

Severe dysfunction: corresponds to LVEF less than 30%

**[Response Ends]**

**sp.13. Provide details needed to calculate the numerator.**

*All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome 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 sp.11.*

**[Response Begins]**

Left ventricular ejection fraction (LVEF) < 40% or documentation of severely or moderately depressed left ventricular systolic function (G8738)

OR

Left ventricular ejection fraction (LVEF) >=40% or documentation as normal or mildly depressed left ventricular systolic function (G8739)

**[Response Ends]**

**sp.14. State the denominator.**

*Brief, narrative description of the target population being measured.*

**[Response Begins]**

All patients aged 18 years and older with a diagnosis of heart failure.

**[Response Ends]**

**sp.15. Provide details needed to calculate the denominator.**

*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 sp.11.*

**[Response Begins]**

See 'Registry Supplemental Resources' attached in appendix field A.1 for data dictionary and form.

Codes that are applicable to denominator are:

Diagnosis for heart failure (ICD-9-CM): 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9

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, I50.9

Patient encounter during the reporting period (CPT): 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 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

**[Response Ends]**

**sp.16. Describe the denominator exclusions.**

*Brief narrative description of exclusions from the target population.*

**[Response Begins]**

None.

**[Response Ends]**

**sp.17. Provide details needed to calculate the denominator exclusions.**

*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 sp.11.*

**[Response Begins]**

Not Applicable.

**[Response Ends]**

**sp.18. Provide all information required to stratify the measure results, if necessary.**

*Include the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate. Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format in the Data Dictionary field.*

**[Response Begins]**

Not Applicable.

**[Response Ends]**

**sp.19. Select the risk adjustment type.**

*Select type. Provide specifications for risk stratification and/or risk models in the Scientific Acceptability section.*

**[Response Begins]**

No risk adjustment or risk stratification

**[Response Ends]**

**sp.20. Select the most relevant type of score.**

*Attachment: If available, please provide a sample report.*

**[Response Begins]**

Rate/proportion

**[Response Ends]**

**sp.21. Select the appropriate interpretation of the measure score.**

*Classifies interpretation of score according to whether better quality or resource use is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score*

**[Response Begins]**

Better quality = Higher score

**[Response Ends]**

**sp.22. Diagram or describe the calculation of the measure score as an ordered sequence of steps.**

*Identify the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period of data, aggregating data; risk adjustment; etc.*

**[Response Begins]**

To calculate performance rates:

- 1) Find the patients who meet the initial patient 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 patient 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 patient population and denominator are identical.
- 4) From the patients within the denominator, find the patients who qualify for the Numerator (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.

**[Response Ends]**

**sp.25. If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.**

**[Response Begins]**

Not Applicable. The measure is not based on a sample.

**[Response Ends]**

**sp.28. Select only the data sources for which the measure is specified.**

**[Response Begins]**

Registry Data

**[Response Ends]**

**sp.29. Identify the specific data source or data collection instrument.**

*For example, provide the name of the database, clinical registry, collection instrument, etc., and describe how data are collected.*

**[Response Begins]**

This measure is currently being used in the ACCF PINNACLE registry for the outpatient office setting. See attached form and data dictionary.

**[Response Ends]**

sp.30. Provide the data collection instrument.

[Response Begins]

[Response Ends]

2ma.01. Indicate whether additional empirical reliability testing at the accountable entity level has been conducted. If yes, please provide results in the following section, Scientific Acceptability: Reliability - Testing. Include information on all testing conducted (prior testing as well as any new testing).

*Please separate added or updated information from the most recent measure evaluation within each question response in the Scientific Acceptability sections. For example:*

**Current Submission:**

*Updated testing information here.*

**Previous Submission:**

*Testing from the previous submission here.*

[Response Begins]

[Response Ends]

2ma.02. Indicate whether additional empirical validity testing at the accountable entity level has been conducted. If yes, please provide results in the following section, Scientific Acceptability: Validity - Testing. Include information on all testing conducted (prior testing as well as any new testing).

*Please separate added or updated information from the most recent measure evaluation within each question response in the Scientific Acceptability sections. For example:*

**Current Submission:**

*Updated testing information here.*

**Previous Submission:**

*Testing from the previous submission here.*

[Response Begins]

[Response Ends]

2ma.03. For outcome, patient-reported outcome, resource use, cost, and some process measures, risk adjustment/stratification may be conducted. Did you perform a risk adjustment or stratification analysis?

[Response Begins]

[Response Ends]

2ma.04. For maintenance measures in which risk adjustment/stratification has been performed, indicate whether additional risk adjustment testing has been conducted since the most recent maintenance evaluation. This may include updates to the risk adjustment analysis with additional clinical, demographic, and social risk factors.

Please update the Scientific Acceptability: Validity - Other Threats to Validity section.

Note: This section must be updated even if social risk factors are not included in the risk adjustment strategy.

**[Response Begins]**

**[Response Ends]**

Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate fields in the Scientific Acceptability sections of the Measure Submission Form.

- Measures must be tested for all the data sources and levels of analyses that are specified. If there is more than one set of data specifications or more than one level of analysis, contact NQF staff about how to present all the testing information in one form.
- All required sections must be completed.
- For composites with outcome and resource use measures, Questions 2b.23-2b.37 (Risk Adjustment) also must be completed.
- If specified for multiple data sources/sets of specifications (e.g., claims and EHRs), Questions 2b.11-2b.13 also must be completed.
- An appendix for supplemental materials may be submitted (see Question 1 in the Additional section), but there is no guarantee it will be reviewed.
- Contact NQF staff with any questions. Check for resources at the [Submitting Standards webpage](#).
- For information on the most updated guidance on how to address social risk factors variables and testing in this form refer to the release notes for the [2021 Measure Evaluation Criteria and Guidance](#).

Note: The information provided in this form is intended to aid the Standing Committee and other stakeholders in understanding to what degree the testing results for this measure meet NQF's evaluation criteria for testing.

2a. Reliability testing demonstrates the measure data elements are repeatable, producing the same results a high proportion of the time when assessed in the same population in the same time period and/or that the measure score is precise. For instrument-based measures (including PRO-PMs) and composite performance measures, reliability should be demonstrated for the computed performance score.

2b1. Validity testing demonstrates that the measure data elements are correct and/or the measure score correctly reflects the quality of care provided, adequately identifying differences in quality. For instrument based measures (including PRO-PMs) and composite performance measures, validity should be demonstrated for the computed performance score.

2b2. Exclusions are supported by the clinical evidence and are of sufficient frequency to warrant inclusion in the specifications of the measure;

AND

If patient preference (e.g., informed decision-making) is a basis for exclusion, there must be evidence that the exclusion impacts performance on the measure; in such cases, the measure must be specified so that the information about patient preference and the effect on the measure is transparent (e.g., numerator category computed separately, denominator exclusion category computed separately).

2b3. For outcome measures and other measures when indicated (e.g., resource use):

- an evidence-based risk-adjustment strategy (e.g., risk models, risk stratification) is specified; is based on patient factors (including clinical and social risk factors) that influence the measured outcome and are present at start of care; 14,15 and has demonstrated adequate discrimination and calibration

OR

- rationale/data support no risk adjustment/ stratification.

2b4. Data analysis of computed measure scores demonstrates that methods for scoring and analysis of the specified measure allow for identification of statistically significant and practically/clinically meaningful 16 differences in performance;

OR

there is evidence of overall less-than-optimal performance.

2b5. If multiple data sources/methods are specified, there is demonstration they produce comparable results.

2b6. Analyses identify the extent and distribution of missing data (or nonresponse) and demonstrate that performance results are not biased due to systematic missing data (or differences between responders and non-responders) and how the specified handling of missing data minimizes bias.

2c. For composite performance measures, empirical analyses support the composite construction approach and demonstrate that:

2c1. the component measures fit the quality construct and add value to the overall composite while achieving the related objective of parsimony to the extent possible; and

2c2. the aggregation and weighting rules are consistent with the quality construct and rationale while achieving the related objective of simplicity to the extent possible.

(if not conducted or results not adequate, justification must be submitted and accepted)

## Definitions

Reliability testing applies to both the data elements and computed measure score. Examples of reliability testing for data elements include, but are not limited to: inter-rater/abstractor or intra-rater/abstractor studies; internal consistency for multi-item scales; test-retest for survey items. Reliability testing of the measure score addresses precision of measurement (e.g., signal-to-noise).

Validity testing applies to both the data elements and computed measure score. Validity testing of data elements typically analyzes agreement with another authoritative source of the same information. Examples of validity testing of the measure score include, but are not limited to: testing hypotheses that the measures scores indicate quality of care, e.g., measure scores are different for groups known to have differences in quality assessed by another valid quality measure or method; correlation of measure scores with another valid indicator of quality for the specific topic; or relationship to conceptually related measures (e.g., scores on process measures to scores on outcome measures). Face validity of the measure score as a quality indicator may be adequate if accomplished through a systematic and transparent process, by identified experts, and explicitly addresses whether performance scores resulting from the measure as specified can be used to distinguish good from poor quality. The degree of consensus and any areas of disagreement must be provided/discussed.

Examples of evidence that an exclusion distorts measure results include, but are not limited to: frequency of occurrence, variability of exclusions across providers, and sensitivity analyses with and without the exclusion.

Patient preference is not a clinical exception to eligibility and can be influenced by provider interventions.

Risk factors that influence outcomes should not be specified as exclusions.

With large enough sample sizes, small differences that are statistically significant may or may not be practically or clinically meaningful. The substantive question may be, for example, whether a statistically significant difference of one percentage point in the percentage of patients who received smoking cessation counseling (e.g., 74 percent v. 75 percent) is clinically meaningful; or whether a statistically significant difference of \$25 in cost for an episode of care (e.g., \$5,000 v. \$5,025) is practically meaningful. Measures with overall less-than-optimal performance may not demonstrate much variability across providers.

Please separate added or updated information from the most recent measure evaluation within each question response in the Importance to Scientific Acceptability sections. For example:

**2021 Submission:**

Updated testing information here.

**2018 Submission:**

Testing from the previous submission here.

**2a.01. Select only the data sources for which the measure is tested.**

[Response Begins]

[Response Ends]

**2a.02. If an existing dataset was used, identify the specific dataset.**

*The dataset used for testing must be consistent with the measure specifications for target population and healthcare entities being measured; e.g., Medicare Part A claims, Medicaid claims, other commercial insurance, nursing home MDS, home health OASIS, clinical registry).*

[Response Begins]

[Response Ends]

**2a.03. Provide the dates of the data used in testing.**

*Use the following format: "MM-DD-YYYY - MM-DD-YYYY"*

[Response Begins]

[Response Ends]

**2a.04. Select the levels of analysis for which the measure is tested.**

*Testing must be provided for all the levels specified and intended for measure implementation, e.g., individual clinician, hospital, health plan.*

*Please refrain from selecting the following answer option(s). We are in the process of phasing out these answer options and request that you instead select one of the other answer options as they apply to your measure.*

*Please do not select:*

- Clinician: Clinician
- Population: Population

[Response Begins]

[Response Ends]

**2a.05. List the measured entities included in the testing and analysis (by level of analysis and data source).**

*Identify the number and descriptive characteristics of measured entities included in the analysis (e.g., size, location, type); if a sample was used, describe how entities were selected for inclusion in the sample.*

[Response Begins]

[Response Ends]

**2a.06. Identify the number and descriptive characteristics of patients included in the analysis (e.g., age, sex, race, diagnosis), separated by level of analysis and data source; if a sample was used, describe how patients were selected for inclusion in the sample.**

*If there is a minimum case count used for testing, that minimum must be reflected in the specifications.*

[Response Begins]

[Response Ends]

**2a.07. If there are differences in the data or sample used for different aspects of testing (e.g., reliability, validity, exclusions, risk adjustment), identify how the data or sample are different for each aspect of testing.**

[Response Begins]

[Response Ends]

**2a.08. List the social risk factors that were available and analyzed.**

*For example, patient-reported data (e.g., income, education, language), proxy variables when social risk data are not collected from each patient (e.g. census tract), or patient community characteristics (e.g. percent vacant housing, crime rate) which do not have to be a proxy for patient-level data.*

[Response Begins]

[Response Ends]

Note: If accuracy/correctness (validity) of data elements was empirically tested, separate reliability testing of data elements is not required – in 2a.07 check patient or encounter-level data; in 2a.08 enter “see validity testing section of data elements”; and enter “N/A” for 2a.09 and 2a.10.

**2a.09. Select the level of reliability testing conducted.**

*Choose one or both levels.*

[Response Begins]

[Response Ends]

**2a.10. For each level of reliability testing checked above, describe the method of reliability testing and what it tests.**

*Describe the steps—do not just name a method; what type of error does it test; what statistical analysis was used.*

[Response Begins]

[Response Ends]

**2a.11. For each level of reliability testing checked above, what were the statistical results from reliability testing?**

*For example, provide the percent agreement and kappa for the critical data elements, or distribution of reliability statistics from a signal-to-noise analysis. For score-level reliability testing, when using a signal-to-noise analysis, more than just one overall statistic should be reported (i.e., to demonstrate variation in reliability across providers). If a particular method yields only one statistic, this should be explained. In addition, reporting of results stratified by sample size is preferred (pg. 18, [NQF Measure Evaluation Criteria](#)).*

[Response Begins]

[Response Ends]

**2a.12. Interpret the results, in terms of how they demonstrate reliability.**

*(In other words, what do the results mean and what are the norms for the test conducted?)*

[Response Begins]

[Response Ends]

**2b.01. Select the level of validity testing that was conducted.**

[Response Begins]

[Response Ends]

**2b.02. For each level of testing checked above, describe the method of validity testing and what it tests.**

*Describe the steps—do not just name a method; what was tested, e.g., accuracy of data elements compared to authoritative source, relationship to another measure as expected; what statistical analysis was used.*

[Response Begins]

[Response Ends]

**2b.03. Provide the statistical results from validity testing.**

*Examples may include correlations or t-test results.*

[Response Begins]

[Response Ends]

**2b.04. Provide your interpretation of the results in terms of demonstrating validity. (i.e., what do the results mean and what are the norms for the test conducted?)**

[Response Begins]

[Response Ends]

**2b.05. Describe the method for determining if statistically significant and clinically/practically meaningful differences in performance measure scores among the measured entities can be identified.**

*Describe the steps—do not just name a method; what statistical analysis was used? Do not just repeat the information provided in Importance to Measure and Report: Gap in Care/Disparities.*

[Response Begins]

[Response Ends]

**2b.06. Describe the statistical results from testing the ability to identify statistically significant and/or clinically/practically meaningful differences in performance measure scores across measured entities.**

*Examples may include number and percentage of entities with scores that were statistically significantly different from mean or some benchmark, different from expected; how was meaningful difference defined.*

[Response Begins]

[Response Ends]

**2b.07. Provide your interpretation of the results in terms of demonstrating the ability to identify statistically significant and/or clinically/practically meaningful differences in performance across measured entities.**

*In other words, what do the results mean in terms of statistical and meaningful differences?*

[Response Begins]

[Response Ends]

**2b.08. Describe the method of testing conducted to identify the extent and distribution of missing data (or non-response) and demonstrate that performance results are not biased due to systematic missing data (or differences between responders and non-responders). Include how the specified handling of missing data minimizes bias.**

*Describe the steps—do not just name a method; what statistical analysis was used.*

[Response Begins]

[Response Ends]

**2b.09. Provide the overall frequency of missing data, the distribution of missing data across providers, and the results from testing related to missing data.**

*For example, provide results of sensitivity analysis of the effect of various rules for missing data/non-response. If no empirical sensitivity analysis was conducted, identify the approaches for handling missing data that were considered and benefits and drawbacks of each).*

[Response Begins]

[Response Ends]

**2b.10. Provide your interpretation of the results, in terms of demonstrating that performance results are not biased due to systematic missing data (or differences between responders and non-responders), and how the specified handling of missing data minimizes bias.**

*In other words, what do the results mean in terms of supporting the selected approach for missing data and what are the norms for the test conducted; if no empirical analysis was conducted, justify the selected approach for missing data.*

**[Response Begins]**

**[Response Ends]**

Note: This item is directed to measures that are risk-adjusted (with or without social risk factors) OR to measures with more than one set of specifications/instructions (e.g., one set of specifications for how to identify and compute the measure from medical record abstraction and a different set of specifications for claims or eQMs). It does not apply to measures that use more than one source of data in one set of specifications/instructions (e.g., claims data to identify the denominator and medical record abstraction for the numerator). Comparability is not required when comparing performance scores with and without social risk factors in the risk adjustment model. However, if comparability is not demonstrated for measures with more than one set of specifications/instructions, the different specifications (e.g., for medical records vs. claims) should be submitted as separate measures.

**2b.11. Indicate whether there is more than one set of specifications for this measure.**

**[Response Begins]**

**[Response Ends]**

**2b.12. Describe the method of testing conducted to compare performance scores for the same entities across the different data sources/specifications.**

*Describe the steps—do not just name a method. Indicate what statistical analysis was used.*

**[Response Begins]**

**[Response Ends]**

**2b.13. Provide the statistical results from testing comparability of performance scores for the same entities when using different data sources/specifications.**

*Examples may include correlation, and/or rank order.*

**[Response Begins]**

**[Response Ends]**

**2b.14. Provide your interpretation of the results in terms of the differences in performance measure scores for the same entities across the different data sources/specifications.**

*In other words, what do the results mean and what are the norms for the test conducted.*

**[Response Begins]**

**[Response Ends]**

**2b.15. Indicate whether the measure uses exclusions.**

[Response Begins]

[Response Ends]

**2b.16. Describe the method of testing exclusions and what was tested.**

*Describe the steps—do not just name a method; what was tested, e.g., whether exclusions affect overall performance scores; what statistical analysis was used?*

[Response Begins]

[Response Ends]

**2b.17. Provide the statistical results from testing exclusions.**

*Include overall number and percentage of individuals excluded, frequency distribution of exclusions across measured entities, and impact on performance measure scores.*

[Response Begins]

[Response Ends]

**2b.18. Provide your interpretation of the results, in terms of demonstrating that exclusions are needed to prevent unfair distortion of performance results.**

*In other words, the value outweighs the burden of increased data collection and analysis. Note: If patient preference is an exclusion, the measure must be specified so that the effect on the performance score is transparent, e.g., scores with and without exclusion.*

[Response Begins]

[Response Ends]

**2b.19. Check all methods used to address risk factors.**

[Response Begins]

[Response Ends]

**2b.20. If using statistical risk models, provide detailed risk model specifications, including the risk model method, risk factors, risk factor data sources, coefficients, equations, codes with descriptors, and definitions.**

[Response Begins]

[Response Ends]

**2b.21. If an outcome or resource use measure is not risk-adjusted or stratified, provide rationale and analyses to demonstrate that controlling for differences in patient characteristics (i.e., case mix) is not needed to achieve fair comparisons across measured entities.**

[Response Begins]

[Response Ends]

**2b.22. Select all applicable resources and methods used to develop the conceptual model of how social risk impacts this outcome.**

[Response Begins]

[Response Ends]

**2b.23. Describe the conceptual and statistical methods and criteria used to test and select patient-level risk factors (e.g., clinical factors, social risk factors) used in the statistical risk model or for stratification by risk.**

*Please be sure to address the following: potential factors identified in the literature and/or expert panel; regression analysis; statistical significance of  $p < 0.10$  or other statistical tests; correlation of  $x$  or higher. Patient factors should be present at the start of care, if applicable. Also discuss any “ordering” of risk factor inclusion; note whether social risk factors are added after all clinical factors. Discuss any considerations regarding data sources (e.g., availability, specificity).*

[Response Begins]

[Response Ends]

**2b.24. Detail the statistical results of the analyses used to test and select risk factors for inclusion in or exclusion from the risk model/stratification.**

[Response Begins]

[Response Ends]

**2b.25. Describe the analyses and interpretation resulting in the decision to select or not select social risk factors.**

*Examples may include prevalence of the factor across measured entities, availability of the data source, empirical association with the outcome, contribution of unique variation in the outcome, or assessment of between-unit effects and within-unit effects. Also describe the impact of adjusting for risk (or making no adjustment) on providers at high or low extremes of risk.*

[Response Begins]

[Response Ends]

**2b.26. Describe the method of testing/analysis used to develop and validate the adequacy of the statistical model or stratification approach (describe the steps—do not just name a method; what statistical analysis was used). Provide the statistical results from testing the approach to control for differences in patient characteristics (i.e., case mix) below. If stratified ONLY, enter “N/A” for questions about the statistical risk model discrimination and calibration statistics.**

*Validation testing should be conducted in a data set that is separate from the one used to develop the model.*

[Response Begins]

[Response Ends]

**2b.27. Provide risk model discrimination statistics.**

*For example, provide c-statistics or R-squared values.*

[Response Begins]

[Response Ends]

**2b.28. Provide the statistical risk model calibration statistics (e.g., Hosmer-Lemeshow statistic).**

[Response Begins]

[Response Ends]

**2b.29. Provide the risk decile plots or calibration curves used in calibrating the statistical risk model.**

*The preferred file format is .png, but most image formats are acceptable.*

[Response Begins]

[Response Ends]

**2b.30. Provide the results of the risk stratification analysis.**

[Response Begins]

[Response Ends]

**2b.31. Provide your interpretation of the results, in terms of demonstrating adequacy of controlling for differences in patient characteristics (i.e., case mix).**

*In other words, what do the results mean and what are the norms for the test conducted?*

[Response Begins]

[Response Ends]

**2b.32. Describe any additional testing conducted to justify the risk adjustment approach used in specifying the measure.**

*Not required but would provide additional support of adequacy of the risk model, e.g., testing of risk model in another data set; sensitivity analysis for missing data; other methods that were assessed.*

[Response Begins]

[Response Ends]

### 3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

---

**3.01. Check all methods below that are used to generate the data elements needed to compute the measure score.**

[Response Begins]

[Response Ends]

**3.02. Detail to what extent the specified data elements are available electronically in defined fields.**

*In other words, indicate whether data elements that are needed to compute the performance measure score are in defined, computer-readable fields.*

[Response Begins]

ALL data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS)

[Response Ends]

**3.03. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using data elements not from electronic sources.**

[Response Begins]

[Response Ends]

**3.04. Describe any efforts to develop an eCQM.**

[Response Begins]

[Response Ends]

**3.06. Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.**

[Response Begins]

[Response Ends]

Consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

**3.07. Detail any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm),**

**Attach the fee schedule here, if applicable.**

[Response Begins]

Limited proprietary coding is contained in the measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, the ACC, the AHA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

CPT® contained in the measures specifications is copyright 2004-2015 American Medical Association.

**[Response Ends]**

## 4. Usability and Use

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

---

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making.

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement, in addition to demonstrating performance improvement.

### 4a.01. Check all current uses. For each current use checked, please provide:

Name of program and sponsor

URL

Purpose

Geographic area and number and percentage of accountable entities and patients included

Level of measurement and setting

[Response Begins]

Public Reporting

Quality Improvement with Benchmarking (external benchmarking to multiple organizations)

Quality Improvement (Internal to the specific organization)

[Response Ends]

### 4a.02. Check all planned uses.

[Response Begins]

Public reporting

Quality Improvement (internal to the specific organization)

[Response Ends]

### 4a.03. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing), explain why the measure is not in use.

*For example, do policies or actions of the developer/steward or accountable entities restrict access to performance results or block implementation?*

[Response Begins]

We are continuously seeking opportunities to advocate for expanded use of this measure in government or other programs, including those intended for accountability or public reporting. The ACC, AHA and PCPI do not have any policies that would restrict access to the performance measure specifications or results or that would impede implementation of the measure for any application.

[Response Ends]

**4a.04. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes: used in any accountability application within 3 years, and publicly reported within 6 years of initial endorsement.**

*A credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.*

**[Response Begins]**

We are continuously seeking opportunities to advocate for expanded use of this measure in government or other programs, including those intended for accountability or public reporting.

**[Response Ends]**

**4a.05. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.**

*Detail how many and which types of measured entities and/or others were included. If only a sample of measured entities were included, describe the full population and how the sample was selected.*

**[Response Begins]**

**[Response Ends]**

**4a.06. Describe the process for providing measure results, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.**

**[Response Begins]**

**[Response Ends]**

**4a.07. Summarize the feedback on measure performance and implementation from the measured entities and others. Describe how feedback was obtained.**

**[Response Begins]**

**[Response Ends]**

**4a.08. Summarize the feedback obtained from those being measured.**

**[Response Begins]**

**[Response Ends]**

**4a.09. Summarize the feedback obtained from other users.**

**[Response Begins]**

**[Response Ends]**

**4a.10. Describe how the feedback described has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.**

**[Response Begins]**

**[Response Ends]**

**4b.01. You may refer to data provided in Importance to Measure and Report: Gap in Care/Disparities, but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included). If no improvement was demonstrated, provide an explanation. If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.**

**[Response Begins]**

While the ACCF/AHA and PCPI create measures with an ultimate goal of improving the quality of care, measurement is a mechanism to drive improvement but does not equate with improvement. Measurement can help identify opportunities for improvement with actual improvement requiring making changes to health care processes and structure. In order to promote improvement, quality measurement systems need to provide feedback to front-line clinical staff in as close to real time as possible and at the point of care whenever possible.  
(1)

[1]Conway PH, Mostashari F, Clancy C. The future of quality measurement for improvement and accountability. JAMA. 2013 Jun 5;309(21):2215-6.

**[Response Ends]**

**4b.02. Explain any unexpected findings (positive or negative) during implementation of this measure, including unintended impacts on patients.**

**[Response Begins]**

We are not aware of any unintended consequences at this time, but we continuously monitor for them.

**[Response Ends]**

**4b.03. Explain any unexpected benefits realized from implementation of this measure.**

**[Response Begins]**

**[Response Ends]**

## 5. Comparison to Related or Competing Measures

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

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If you are updating a maintenance measure submission for the first time in MIMS, please note that the previous related and competing data appearing in question 5.03 may need to be entered in to 5.01 and 5.02, if the measures are NQF endorsed. Please review and update questions 5.01, 5.02, and 5.03 accordingly.

### 5.01. Search and select all NQF-endorsed related measures (conceptually, either same measure focus or target population).

*(Can search and select measures.)*

[Response Begins]

[Response Ends]

### 5.02. Search and select all NQF-endorsed competing measures (conceptually, the measures have both the same measure focus or target population).

*(Can search and select measures.)*

[Response Begins]

[Response Ends]

### 5.03. If there are related or competing measures to this measure, but they are not NQF-endorsed, please indicate the measure title and steward.

[Response Begins]

[Response Ends]

### 5.04. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s), indicate whether the measure specifications are harmonized to the extent possible.

[Response Begins]

No

[Response Ends]

### 5.05. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

[Response Begins]

This measure is inpatient based and focuses on the assessment occurring prior to discharge. Our measure looks at whether the assessment was performed during a 12 month period for a patient with a diagnosis of heart failure.

[Response Ends]

### 5.06. Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality). Alternatively, justify endorsing an additional measure.

*Provide analyses when possible.*

**[Response Begins]**

Related Measures: NQF # 0135: Evaluation of Left ventricular systolic function (LVS). This measure is inpatient based and focuses on the assessment occurring prior to discharge. Our measure looks at whether the assessment was performed during a 12 month period for a patient with a diagnosis of heart failure.

**[Response Ends]**

## Appendix

Supplemental materials may be provided in an appendix.:

## Contact Information

**Measure Steward (Intellectual Property Owner):**

**Measure Steward Point of Contact:**

**Measure Developer if different from Measure Steward:**

**Measure Developer Point(s) of Contact:**

## Additional Information

**1. Provide any supplemental materials, if needed, as an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be collated one file with a table of contents or bookmarks. If material pertains to a specific criterion, that should be indicated.**

**[Response Begins]**

**[Response Ends]**

**2. List the workgroup/panel members' names and organizations.**

*Describe the members' role in measure development.*

**[Response Begins]**

Robert O. Bonow, MD, MACC, FAHA, FACP (Co-Chair) (cardiology)  
Theodore G. Ganiats, MD (Co-Chair) (family medicine; measure methodology)  
Craig T. Beam, CRE (patient representative)  
Kathleen Blake, MD (cardiac electrophysiology)  
Donald E. Casey, Jr., MD, MPH, MBA, FACP (internal medicine)  
Sarah J. Goodlin, MD (geriatrics, palliative medicine)  
Kathleen L. Grady, PhD, APN, FAAN, FAHA (cardiac surgery)  
Randal F. Hundley, MD, FACC (cardiology, health plan representative )  
Mariell Jessup, MD, FACC, FAHA, FESC (cardiology, heart failure)  
Thomas E. Lynn, MD (family medicine, measure implementation)  
Frederick A. Masoudi, MD, MSPH (cardiology)  
David Nilasena MD, MSPH, MS (general preventive medicine, public health, measure implementation)  
Paul D. Rockswold, MD, MPH (family medicine)  
Ileana L. Piña, MD, FACC (cardiology, heart failure)  
Lawrence B. Sadwin (patient representative)  
Joanna D. Sikkema, MSN, ANP-BC, FAHA (cardiology)  
Carrie A. Sincak, PharmD, BCPS (pharmacy)  
John Spertus, MD, MPH (cardiology)  
Patrick J. Torcson, MD, FACP, MMM (hospital medicine)  
Elizabeth Torres, MD (internal medicine)  
Mark V. Williams, MD, FHM (hospital medicine)  
John B Wong, MD (internal medicine)

These measures were developed through cross-specialty, multi-disciplinary work groups. All medical specialties and other health care professional disciplines participating in patient care for the clinical condition or topic under study must be equal contributors to the measure development process. In addition, the we strived to include on its work groups individuals representing the perspectives of patients, consumers, private health plans, and employers. This broad-based approach to measure development ensures buy-in on the measures from all stakeholders and minimizes bias toward any individual specialty or stakeholder group.

**[Response Ends]**

**3. Indicate the year the measure was first released.**

**[Response Begins]**

**[Response Ends]**

**4. Indicate the month and year of the most recent revision.**

**[Response Begins]**

**[Response Ends]**

**5. Indicate the frequency of review, or an update schedule, for this measure.**

**[Response Begins]**

Every 3 years or as new evidence becomes available that materially affects the measures

**[Response Ends]**

**6. Indicate the next scheduled update or review of this measure.**

**[Response Begins]**

**[Response Ends]**

**7. Provide a copyright statement, if applicable. Otherwise, indicate "N/A".**

**[Response Begins]**

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**[Response Ends]**

**8. State any disclaimers, if applicable. Otherwise, indicate "N/A".**

**[Response Begins]**

See copyright statement above.

**[Response Ends]**

**9. Provide any additional information or comments, if applicable. Otherwise, indicate "N/A".**

**[Response Begins]**

The ACCF, AHA, and PCPI have a formal measurement review process that stipulates regular (usually on a three-year cycle, when feasible) review of the measures. The process can also be activated if there is a major change in scientific evidence, results from testing or other implementation issues are noted that materially affect the integrity of the measure.

**[Response Ends]**