

2020 ACC/AHA Clinical Performance and Quality Measures for Adults With Heart Failure: A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures.

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<https://www.heart.org/en/about-us/statements-and-policies/copyright-request-form>). This file is available for text mining. It may also be used consistent with the principles of fair use under the copyright law. AHA Scientific Statements heart failure performance measures quality indicators quality measures pmc-status-qastatus 0 pmc-status-live yes pmc-status-embargo no pmc-status-released yes pmc-prop-open-access no pmc-prop-olf no pmc-prop-manuscript yes pmc-prop-open-manuscript yes pmc-prop-legally-suppressed no pmc-prop-has-pdf yes pmc-prop-has-supplement no pmc-prop-pdf-only no pmc-prop-suppress-copyright no pmc-prop-is-real-version no pmc-prop-is-scanned-article no pmc-prop-preprint no pmc-prop-in-epmc yes TOP 10 TAKE-HOME MESSAGES FOR ADULTS WITH HEART FAILURE This document describes performance measures for heart failure that are appropriate for public reporting or pay-for-performance programs.

The performance measures are from the 2017 American College of Cardiology/American Heart Association/Heart Failure Society of America heart failure guideline update and are selected from the strongest recommendations (Class 1 or 3).

Quality measures are also provided that are not yet ready for public reporting or pay for performance but might be useful for clinicians and healthcare organizations for quality improvement.

A new safety measure (laboratory monitoring for patients treated with mineralocorticoid receptor antagonists) is paired with a new treatment measure (mineralocorticoid receptor antagonists in patients with heart failure with reduced left ventricular ejection fraction).

Other additions to the performance measures include the new medication sacubitril/valsartan and use of cardiac resynchronization therapy.

To address frequent lack of titration of heart failure medications, 2 new performance measures are included based on dose, either reaching 50% of the recommended dose (eg, beta blocker or angiotensin-converting enzyme inhibitor/angiotensin receptor antagonist/angiotensin receptor neprilysin inhibitor) or documenting that such a dose was not tolerated or otherwise inappropriate.

For all measures, if the clinician determines the care is inappropriate for the patient, that patient is excluded from the measure.

For all measures, patients who decline treatment or care are excluded.

A patient-centered discussion of the benefits and risks of implantable cardioverter-defibrillator treatment remains a performance measure.

To reflect the increasing importance of patient-reported outcome measures, 2 patient-reported outcomes quality measures were added that use heart failure patient-reported outcomes questionnaires currently accepted by the US Food and Drug Administration.

The American College of Cardiology (ACC)/American Heart Association (AHA) performance measurement sets serve as vehicles to accelerate translation of scientific evidence into clinical practice. Measure sets developed by the ACC/AHA are intended to provide practitioners and institutions that deliver cardiovascular services with tools to measure the quality of care provided and identify opportunities for improvement.

Writing committees are instructed to consider the methodology of performance measure development 1, 2 and to ensure that the measures developed are aligned with ACC/AHA clinical practice guidelines. The writing committees also are charged with constructing measures that maximally capture important aspects of care quality, including timeliness, safety, effectiveness, efficiency, equity, and patient-centeredness, while minimizing, when possible, the reporting burden

imposed on hospitals, practices, and practitioners.

Potential challenges from measure implementation may lead to unintended consequences. The manner in which challenges are addressed is dependent on several factors, including the measure design, data collection method, performance attribution, baseline performance rates, reporting methods, and incentives linked to these reports.

The ACC/AHA Task Force on Performance Measures (Task Force) distinguishes quality measures from performance measures. Quality measures are those metrics that may be useful for local quality improvement but are not yet appropriate for public reporting or pay for performance programs (uses of performance measures). New measures are initially evaluated for potential inclusion as performance measures. In some cases, a measure is insufficiently supported by the guidelines. In other instances, when the guidelines support a measure, the writing committee may feel it is necessary to have the measure tested to identify the consequences of measure implementation. Quality measures may then be promoted to the status of performance measures as supporting evidence becomes available. P. Michael Ho, MD, PhD, FACC, FAHA Chair, ACC/AHA Task Force on Performance Measures

In 2019, the Task Force convened the writing committee to begin the process of revising the existing performance measures set for heart failure that was released in 2011. 3 The writing committee also was charged with the task of developing new measures to evaluate the care of patients in accordance with the 2017 ACC/AHA/HFSA heart failure guideline update. 4

This updated performance measure set addresses in-hospital and continuing care in the outpatient setting. All Class 1 (strong) and 3 (no benefit or harmful, process to be avoided) guideline-recommended processes were considered for inclusion as performance measures. The current Class of Recommendation and Level of Evidence guideline classification scheme used by the ACC and AHA in their clinical guidelines is shown in Table 1 . The value (benefit and cost) of a process of care was also considered. If high-quality, published, cost-effectiveness studies indicate that a Class 1 guideline recommendation for a process of care is considered a poor value by ACC/AHA standards, then it was not included as a performance measure. 5 There were no Class 1 recommended processes of care judged to be of poor value. All ACC/AHA clinical practice guideline recommendations (including Class 2) were considered as potential quality measures. Ultimately, we selected measures based on their importance for health, existing gaps in care, ease of implementation, potential duplication with other performance measure lists, and risk for unintended consequences.

The writing committee developed a comprehensive heart failure measure set that includes 18 measures: 13 performance measures, 4 quality measures, 1 structural measure, and 2 rehabilitation performance measures (from the 2018 ACC/AHA performance measures for cardiac rehabilitation 6), as reflected in Table 2 and Appendix A . The performance measures for heart failure included in the measure set are summarized in Table 2 , which provides information on the measure number, measure title, and care setting. The measure specifications (Appendix A) provide information included in Table 2 and more detailed information including, the measure description, numerator, denominator (ie, denominator exclusions and exceptions), rationale for the measure, clinical practice guideline that supports the measure, measurement period, source of data, and attribution.

The writing committee recognized that the 2018 ACC/AHA performance measures for cardiac rehabilitation have been published that address heart failure. 6 The cardiac rehabilitation measure set includes performance measures for exercise training referral for inpatients and outpatients with heart failure and reduced left ventricular ejection fraction (Table 2). These rehabilitation measures also should be considered heart failure–related ACC/AHA performance measures.

A comprehensive list of contraindications to care is not provided. Instead, it is expected that clinical judgment will be used to determine if a contraindication exists. For example, certain patients with heart failure and congenital heart disease would not qualify for certain treatment measures and should be excluded from the denominator if documented by the clinician.

Although the measures are published as a set, their implementation can be individualized. It is not expected that all measures will be adopted simultaneously. Although all the measures are considered valuable in improving care, we recognize that organizations may only be able to focus on a limited number of measures. When implementing any measure that involves patient input, it is important to consider the patient's health literacy and adapt data collection accordingly. Performance measures are a critical step in addressing disproportionately lower quality of care and potentially worse health status and outcomes among an under-served population.

Heart failure is a major and growing public health problem in the United States with significant morbidity, mortality, and associated cost. A detailed discussion of the scope of the problem and opportunities to improve the quality of care that is provided to patients with this condition is available in the ACCF/AHA 2013 heart failure clinical practice guideline 7 and 2017 ACC/AHA/HFSA heart failure guideline update. 4

The Task Force makes every effort to avoid actual, potential, or perceived conflicts of interest that could arise as a result of relationships with industry or other entities (RWI). Information about the ACC/AHA policy on RWI can be found online. All members of the writing committee, as well as those selected to serve as peer reviewers of this document, were required to disclose all current relationships and those existing within the 12 months before the initiation of this writing effort. ACC/AHA policy also requires that the writing committee chair and at least 50% of the writing committee have no relevant RWI. Writing committee members are excluded from voting on sections to which their specific RWI may apply.

Any writing committee member who develops new RWI during his or her tenure on the writing committee is required to notify staff in writing. These statements are reviewed periodically by the Task Force and by members of the writing committee. Writing committee member and peer reviewer RWI, which are pertinent to the document, are included in the appendixes: Appendix B for relevant writing committee RWI and Appendix C for comprehensive peer reviewer RWI. Additionally, to ensure complete transparency, the writing committee members' comprehensive disclosure information, including RWI not relevant to the present document, is available online. Disclosure information for the Task Force is also available online.

The work of the writing committee was supported exclusively by the ACC and the AHA without commercial support. Members of the writing committee volunteered their time for this effort. Meetings of the writing committee were confidential and attended only by writing committee members and staff from the ACC, AHA, and the Heart Failure Society of America, which served as a collaborator on this project.

In developing the updated heart failure measure set, the writing committee reviewed evidence-based guidelines and statements that would potentially impact the construct of the measures. The clinical practice guidelines and scientific statements that most directly contributed to the development of these measures are shown in Table 3 .

The writing committee considered a number of additional factors, which are listed in Table 4 . The potential impact, appropriateness for public reporting and pay for performance, validity, reliability, and feasibility were considered. The writing committee examined available information on current gaps in care. The term "heart failure" refers to stage C or D heart failure unless otherwise stated. 4

After reviewing the existing clinical practice guidelines, and the 2011 ACCF/AHA/PCPI heart failure performance measurement set, 3 the writing committee discussed which measures required

revision to reflect updated science related to heart failure and identified which guideline recommendations could serve as the basis for new performance or quality measures. The writing committee also reviewed existing publicly available measure sets.

These subsections serve as a synopsis of the revisions that were made to previous measures and a description of why the new measures were created for both the inpatient and outpatient setting.

The writing committee decided to retire the left ventricular ejection fraction assessment measure used in the inpatient setting due to >97% of use 12 (Table 5). Left ventricular ejection fraction assessment in the outpatient setting was retained.

The writing committee reviewed and made changes to the patient self-care education, angiotensin-converting enzyme inhibitor or angiotensin receptor blocker therapy for left ventricular systolic dysfunction, and postdischarge appointment measures, as summarized in Table 6 . Table 6 provides information on the updated measures including the care setting, title, and a brief rationale for revisions made to the measures.

The writing committee created 7 new performance measures (PM 6–11, 13), 2 quality measures (QM 2, 3), and 1 structural measure (SM-1) (Table 7). Six of the new performance measures were based on Class 1 guideline recommendations for therapies known to prolong survival. An additional performance measure (PM-10, measurement of potassium after a mineralocorticoid receptor antagonist prescription) is also guideline recommended and included as a safety measure to accompany prescription for mineralocorticoid receptor antagonist (PM-9). Two new measures based on dose were created (PM-7 and PM-8). These were chosen because of the gap between doses used in practice and those shown to provide survival benefit in clinical trials. They were designed to apply only to those patients without demonstrated intolerance at higher doses.

For more detailed information on each measure's construct, refer to the specifications in Appendix A .

There are multiple ways that cardiac rehabilitation and exercise prescriptions can be implemented. 13 Further studies are needed to determine if there are differences in the magnitude of outcome improvements by approach. Similarly, although patient-reported outcomes are considered an important metric, the best way to measure these needs additional research. Two surveys are well validated: The Kansas City Cardiomyopathy Questionnaire 14 and the Minnesota Living with Heart Failure Questionnaire. 15 However, risk-adjustment is required to fairly compare groups for use as an outcome measure. The collection of the measure (process of care) does not require risk-adjustment but will benefit from additional research to understand optimal timing of collection of patient-reported outcomes, including frequency and relation to the clinic visit. Finally, data supporting sodium-glucose cotransporter-2 inhibitors are emerging for heart failure treatment; however, with additional trials ongoing and having not been integrated into guideline recommendations at the time of generation of the measure set, the writing committee was unable to include them in the measure set.

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ACC/AHA Task Force Members, see page 927

This Physician Performance Measurement Set (PPMS) and related data specifications were developed by the Physician Consortium for Performance Improvement (the Consortium), including the American College of Cardiology (ACC), the American Heart Association (AHA), and the American Medical Association (AMA), to facilitate quality-improvement activities by physicians. The performance measures contained in this PPMS are not clinical guidelines, do not establish a standard of medical care, and have not been tested for all potential applications. Although copyrighted, they can be reproduced and distributed, without modification, for noncommercial purposes, for example, use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the performance measures for commercial gain, or incorporation of the performance measures into a product or service that is sold, licensed, or distributed for commercial gain. Commercial uses of the PPMS require a license agreement between the user and the AMA (on behalf of the Consortium) or the ACC or the AHA. Neither the AMA, ACC, AHA, the Consortium, nor its members shall be responsible for any use of this PPMS.

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This document was approved by the American College of Cardiology Clinical Policy Approval Committee on June 29, 2020; by the American Heart Association Science Advisory and Coordinating Committee on June 11, 2020; the American Heart Association Executive Committee on July 22, 2020; and by the Heart Failure Society of America on July 23, 2020.

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Short Title: PM-1 Left Ventricular Ejection Fraction Assessment (Outpatient Setting)

PM-1: Left Ventricular Ejection Fraction Assessment (Outpatient Setting)

ACCF indicates American College of Cardiology Foundation; AHA, American Heart Association; EF, ejection fraction; EHR, electronic health record; GDMT, guideline-directed medical therapy; HF, heart failure; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; and PM, performance measure.

Short Title: PM-2 Symptom and Activity Assessment (Outpatient Setting)

PM-2: Symptom and Activity Assessment (Outpatient Setting)

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; AHA, American Heart Association; EHR, electronic health record; FDA, US Food and Drug Administration; HF, heart failure; KCCQ, Kansas City Cardiomyopathy Questionnaire; LVAD, left ventricular assist device; MLHFQ, Minnesota Living with Heart Failure Questionnaire; NYHA, New York Heart Association; PM, performance measure; and PRO, patient-reported outcome.

Short Title: PM-3: Symptom Management (Outpatient Setting)

PM-3: Symptom Management (Outpatient Setting)

ACCF indicates American College of Cardiology Foundation; AHA, American Heart Association; BMI, body mass index; EHR, electronic health record; ICC, intraclass correlation coefficient; HRQOL, health-related quality of life; KCCQ, Kansas City Cardiomyopathy Questionnaire; LVAD, left ventricular assist device; MLHFQ, Minnesota Living with Heart Failure Questionnaire; NYHA, New York Heart Association; PM, performance measure; PRO, patient-reported outcome; VE/VO₂, ventilation and carbon dioxide; and VO₂, oxygen consumption.

Short Title: PM-4: Beta-Blocker Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient and Inpatient Setting)

PM-4: Beta-Blocker Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient and Inpatient Setting)

ACCF indicates American College of Cardiology Foundation; AHA, American Heart Association; EHR, electronic health record; HFrEF, heart failure reduced ejection fraction; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; and PM performance measure.

Short Title: PM-5: Angiotensin-Converting Enzyme Inhibitor or Angiotensin Receptor Blocker or Angiotensin Receptor-Neprilysin Inhibitor Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient and Inpatient Setting)

PM-5: Angiotensin-Converting Enzyme Inhibitor or Angiotensin Receptor Blocker or Angiotensin Receptor-Neprilysin Inhibitor Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient and Inpatient Setting)

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; ACE, angiotensin-converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor-neprilysin inhibitor; EHR, electronic health record; HFrEF, heart failure reduced ejection fraction; HFSA, Heart Failure Society of America; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; and PM, performance measure.

Short Title: PM-6: Angiotensin Receptor-Neprilysin Inhibitor Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient and Inpatient Setting)

PM-6: Angiotensin Receptor-Neprilysin Inhibitor Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient and Inpatient Setting)

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; ACE, angiotensin-converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor-neprilysin inhibitor; EHR, electronic health record; HFrEF, heart failure reduced ejection fraction; HFSA, Heart Failure Society of America; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; NYHA, New York Heart Association; and PM, performance measure.

Short Title: PM-7: Dose of Beta-Blocker Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient Setting)

PM-7: Dose of Beta-Blocker Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient Setting)

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; AHA, American Heart Association; EHR, electronic health record; GDMT, guideline-directed medical therapy; HFrEF, heart failure reduced ejection fraction; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; and PM, performance measure.

Target Doses of Guideline-Directed Medical Therapies

Sources for target doses include: 2013 ACCF/AHA heart failure clinical practice guideline, 7 2017 ACC/AHA/HFSA heart failure guideline update, 4 2017 ACC expert consensus decision pathway for optimization of heart failure treatment, 10 and FDA-approved labels. 68

ACC/AHA Guidelines recommend losartan 150 mg as target dose. However, because current FDA-approved labeling has 100 mg as the maximal dose, the 100-mg dose is used in the performance measure.

The sacubitril 98 mg and valsartan 102 mg total daily dosing (49/51 mg twice daily) is considered fulfilling the 50% of target dosing criteria. ACE indicates angiotensin–converting enzyme; ARB, angiotensin II receptor blocker; and ARNI, angiotensin receptor–neprilysin inhibitor.

Short Title: PM-8: Dose of Angiotensin-Converting Enzyme Inhibitor, Angiotensin Receptor Blocker, or Angiotensin Receptor–Neprilysin Inhibitor Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient Setting)

PM-8: Dose of Angiotensin-Converting Enzyme Inhibitor, Angiotensin Receptor Blocker, or Angiotensin Receptor–Neprilysin Inhibitor Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient Setting)

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; ACE, angiotensin–converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor–neprilysin inhibitor; EHR, electronic health record; GDMT, guideline-directed medical therapy; HFrEF, heart failure reduced ejection fraction; HFSA, Heart Failure Society of America; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; and PM, performance measure.

Short Title: PM-9: Mineralocorticoid Receptor Antagonist Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient and Inpatient Setting)

PM-9: Mineralocorticoid Receptor Antagonist Therapy for Heart Failure With Reduced Ejection Fraction (Outpatient and Inpatient Setting)

ACCF indicates American College of Cardiology Foundation; ACE, angiotensin–converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor–neprilysin inhibitor; CHAMP-HF, CHAnge the Management of Patients with Heart Failure; Cr, creatinine; EHR, electronic health record; HF, heart failure; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; MI, myocardial infarction; MRA, mineralocorticoid receptor antagonist; NYHA, New York Heart Association; and PM, performance measure.

Short Title: PM-10: Laboratory Monitoring in New Mineralocorticoid Receptor Antagonist Therapy (Outpatient and Inpatient Setting)

PM-10: Laboratory Monitoring in New Mineralocorticoid Receptor Antagonist Therapy (Outpatient and Inpatient Setting)

ACCF indicates American College of Cardiology Foundation; AHA, American Heart Association; EHR, electronic health record; EMPHASIS-HF, Eplerenone in Mild Patients Hospitalization And Survival Study in Heart Failure; HF, heart failure; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; MRA, mineralocorticoid receptor antagonist; NYHA, New York Heart Association; and PM, performance measure.

Short Title: PM-11: Hydralazine/Isosorbide Dinitrate Therapy for Heart Failure With Reduced Ejection Fraction in Those Self-Identified as Black or African American (Outpatient and Inpatient Setting)

PM-11: Hydralazine/Isosorbide Dinitrate Therapy for Heart Failure With Reduced Ejection Fraction in Those Self-Identified as Black or African American (Outpatient and Inpatient Setting)

ACCF indicates American College of Cardiology Foundation; ACE, angiotensin–converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor–neprilysin inhibitor; EHR, electronic health record; HFrEF, heart failure reduced ejection fraction; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; NYHA, New York Heart Association; and PM, performance measure.

Short Title: PM-12: Counseling Regarding Implantable Cardioverter-Defibrillator Implantation for Patients With Heart Failure With Reduced Ejection Fraction on Guideline-Directed Medical Therapy (Outpatient Setting)

PM-12: Counseling Regarding Implantable Cardioverter-Defibrillator Implantation for Patients With Heart Failure With Reduced Ejection Fraction on Guideline-Directed Medical Therapy (Outpatient Setting)

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; ACE, angiotensin–converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor–neprilysin inhibitor; DCM, dilated cardiomyopathy; EHR, electronic health record; GWTG, Get With The Guidelines; GDMT, guideline-directed medical therapy; HF, heart failure; HFrEF, heart failure reduced ejection fraction; HRS, Heart Rhythm Society; ICD, implantable cardioverter-defibrillator; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; MI, myocardial infarction; NYHA, New York Heart Association; PM, performance measure; and SCD, sudden cardiac death.

Short Title: PM-13: Cardiac Resynchronization Therapy Implantation for Patients With Heart Failure With Reduced Ejection Fraction on Guideline-Directed Medical Therapy (Outpatient Setting)

PM-13: Cardiac Resynchronization Therapy Implantation for Patients With Heart Failure With Reduced Ejection Fraction on Guideline-Directed Medical Therapy (Outpatient Setting)

ACCF indicates American College of Cardiology Foundation; ACE, angiotensin–converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor–neprilysin inhibitor; CRT, cardiac resynchronization therapy; EHR, electronic health record; GWTG, Get With The Guidelines; GDMT, guideline-directed medical therapy; ICD, implantable cardioverter-defibrillator; LBBB, left bundle branch block; LVAD, left ventricular assist device; LVEF, left ventricular ejection fraction; NYHA, New York Heart Association; and PM, performance measure.

Short Title: QM-1: Patient Self-Care Education (Outpatient Setting)

QM-1: Patient Self-Care Education (Outpatient Setting)

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; AHA, American Heart Association; EHR, electronic health record; HF, heart failure; HFSA, Heart Failure Society of America; IMPROVE-HF, Registry to Improve the Use of Evidence-Based Heart Failure Therapies in the Outpatient Setting; LVAD, left ventricular assist device; and QM, quality measure.

Short Title: QM-2: Measurement of Patient-Reported Outcome-Health Status (Outpatient Setting)

QM-2: Measurement of Patient-Reported Outcome-Health Status (Outpatient Setting)

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; AHA, American Heart Association; EHR, electronic health record; FDA, US Food and Drug Administration; KCCQ, Kansas City Cardiomyopathy Questionnaire; LVAD, left ventricular assist device; MLHFQ, Minnesota Living with Heart Failure Questionnaire; NYHA, New York Heart Association; PRO, patient-reported outcome; and QM, quality measure.

Short Title: QM-3: Sustained or Improved Health Status in Heart Failure (Outcome)

QM-3: Sustained or Improved Health Status (Patient-Reported Symptoms, Function, and Quality of Life) During the Reporting Period for All Patients With Heart Failure

ACCF indicates American College of Cardiology Foundation; AHA, American Heart Association; EHR, electronic health record; KCCQ, Kansas City Cardiomyopathy Questionnaire; LVAD, left ventricular assist device; MLHFQ, Minnesota Living with Heart Failure Questionnaire; PRO, patient-reported outcome; PROMIS-PLUS-HF, Patient-Reported Outcomes Measurement Information System-Plus-Heart Failure; QCDR, Qualified Clinical Data Registry; and QM, quality measure.

Short Title: QM-4: Postdischarge Appointment for Patients With Heart Failure (Inpatient Setting)

QM-4: Postdischarge Appointment for Patients With Heart Failure (Inpatient Setting)

ACCF indicates American College of Cardiology Foundation; AHA, American Heart Association; EHR, electronic health record; LVAD, left ventricular assist device; and QM, quality measure.

Short Title: SM-1: Heart Failure Registry Participation

SM-1: Participation in ≥ 1 Regional or National Registries That Include Patients With Heart Failure

ACCF indicates American College of Cardiology Foundation; AHA, American Heart Association; GWTG, Get With The Guidelines; HF, heart failure; PINNACLE, Practice Innovation And Clinical Excellence; and SM, structural measure.

Short Title: PM-2: Exercise Training Referral for HFrEF From Inpatient Setting

PM-2: Exercise Training Referral for HFrEF From an Inpatient Setting

ACCF indicates American College of Cardiology Foundation; AHA, American Heart Association; CR, cardiac rehabilitation; CVD, cardiovascular disease; HF, heart failure; HFrEF, heart failure with reduced ejection fraction; LVEF, left ventricular ejection fraction; and PM, performance measure.

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This table represents the relationships of committee members with industry and other entities that were determined to be relevant to this document. These relationships were reviewed and updated

in conjunction with all meetings and/or conference calls of the writing committee during the document development process. The table does not necessarily reflect relationships with industry at the time of publication. A person is deemed to have a significant interest in a business if the interest represents ownership of $\geq 5\%$ of the voting stock or share of the business entity, or ownership of $\geq \$5,000$ of the fair market value of the business entity; or if funds received by the person from the business entity exceed 5% of the person's gross income for the previous year. Relationships that exist with no financial benefit are also included for the purpose of transparency. Relationships in this table are modest unless otherwise noted. According to the ACC/AHA, a person has a relevant relationship IF: a) the relationship or interest relates to the same or similar subject matter, intellectual property or asset, topic, or issue addressed in the document; or b) the company/entity (with whom the relationship exists) makes a drug, drug class, or device addressed in the document or makes a competing drug or device addressed in the document; or c) the person, or a member of the person's household, has a reasonable potential for financial, professional, or other personal gain or loss as a result of the issues/content addressed in the document.

Writing committee members were excluded from voting on sections to which their specific relationships with industry and other entities may apply. Dr. Fonarow was excluded from voting on PM-4, PM-5, PM-6, PM-7, PM-8, PM-9, PM-10, PM-12, PM-13, and SM-1. Dr. Pisani was excluded from voting on PM-5, PM-6, PM-8, PM-12, and PM-13. Dr. Spertus was excluded from voting on PM-2, PM-3, PM-4, PM-5, PM-6, PM-7, PM-8, PM-9, PM-10, PM-12, PM-13, QM-2, QM-3, and SM-1. Dr. Thibodeau was excluded from voting on PM-5, PM-6, and PM-8.

CMS reported payments to Dr. Breathett in 2019 related to food, beverage, travel, and lodging for Abbott; however, she disagrees with this report. Dr. Breathett was not the lead author on any measures.

CMS reported a food and beverage payment from Novartis to Dr. Taylor in 2019, however, he disagrees with this report. Novartis has marked the food and beverage entry for deletion. Dr. Taylor was not the lead author on any measures.

ACC indicates American College of Cardiology; AHA, American Heart Association; HF, heart failure; KCCQ, Kansas City Cardiomyopathy Questionnaire; PI, principal investigator; UA, University of Arizona; UCLA, University of California, Los Angeles; UK, United Kingdom; and VA, Veterans Affairs.

Plaintiff, patient died of VT due to QT-prolonging meds, 2018

Research Grant Funding: PI Career Development Award, Co-Investigator VA Merit Review Grant *

This table represents all relationships of reviewers with industry and other entities that were reported at the time of peer review, including those not deemed to be relevant to this document, at the time this document was under review. The table does not necessarily reflect relationships with industry at the time of publication. A person is deemed to have a significant interest in a business if the interest represents ownership of $\geq 5\%$ of the voting stock or share of the business entity, or ownership of $\geq \$5,000$ of the fair market value of the business entity; or if funds received by the person from the business entity exceed 5% of the person's gross income for the previous year. Relationships that exist with no financial benefit are also included for the purpose of transparency. Relationships in this table are modest unless otherwise noted. Names are listed in alphabetical order within each category of review. Please refer to <http://www.acc.org/guidelines/about-guidelines-and-clinical-documents/relationships-with-industry-policy> for definitions of disclosure categories or additional information about the ACC/AHA Disclosure Policy for Writing Committees.

Significant (greater than \$5,000) relationship.

This disclosure was entered under the Clinical Trial Enroller category in the ACC's disclosure system.

ACC indicates American College of Cardiology; AHA, American Heart Association; CNS, Clinical Nurse Specialist; DSMB, Data Safety and Monitoring Board; FDA, US Food and Drug Administration; HFSA, Heart Failure Society of America; NHLBI, National Heart, Lung, and Blood Institute; NIH, National Institutes of Health; PCORI, Patient-Centered Outcomes Research Institute; PI, principal investigator; SCD, sudden cardiac death; TFPM, Task Force on Performance Measures; UNC, University of North Carolina; VA, Veterans Administration; and VT, ventricular tachycardia.

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ACC/AHA 2020 Heart Failure Clinical Performance, Quality and Structural Measures

ACC indicates American College of Cardiology; ACE, angiotensin–converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor–neprilysin inhibitor; COR, class of recommendation; CRT, cardiac resynchronization therapy; HF, heart failure; HFrEF, heart failure with reduced ejection fraction; ICD, implantable cardioverter-defibrillator; LOE, level of evidence; LVEF, left ventricular ejection fraction; MRA, mineralocorticoid receptor antagonists; PM, performance measure; QM, quality measure; and SM, structural measure.

Associated ACC/AHA Clinical Practice Guidelines and Other Clinical Guidance Documents

ACC indicates American College of Cardiology; ACCF, American College of Cardiology Foundation; AHA, American Heart Association; ESC, European Society of Cardiology; HFSA, Heart Failure Society of America; HRS, Heart Rhythm Society; and PCPI, Physician Consortium for Performance Improvement.

ACC/AHA Task Force on Performance Measures: Attributes for Performance Measures 11

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Retired Heart Failure Measures From the 2011 Set 3

LVEF indicates left ventricular ejection fraction.

ACC indicates American College of Cardiology; ACE, angiotensin–converting enzyme; AHA, American Heart Association; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor–neprilysin inhibitor; HF, heart failure; and LVSD, left ventricular systolic dysfunction.

ACE indicates angiotensin–converting enzyme; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor–neprilysin inhibitor; CRT, cardiac resynchronization therapy; HFrEF, heart failure with reduced ejection fraction; MRA, mineralocorticoid receptor antagonists; N/A, not

applicable; PM, performance measure; QM, quality measure; and SM, structural measure.