

# ENDORSEMENT SUMMARY:

## Cardiovascular Measures

JANUARY 2012

### Purpose of the Project

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The human and financial costs of cardiovascular disease are enormous. Heart disease is the leading cause of death for men and women in the United States and was estimated to cost the United States \$316.4 billion in 2010. Hypertension affects 1 in 3 Americans, increasing their risk for heart disease, stroke, or kidney disease at a potential cost of \$76.6 billion a year in health care services, medications, and missed days of work.

NQF has endorsed a large number of performance measures to evaluate the quality of care for cardiovascular conditions in the ambulatory and hospital settings over the past 10 years. This evaluation of all NQF-endorsed cardiovascular measures and consideration of new measures will ensure the currency of NQF's portfolio of voluntary consensus standards.

As the quality measurement enterprise has matured, better data from clinical registries and electronic health records can support the demand for meaningful performance measures. There has also been a shift to focus on outcomes and composite measures.

The Cardiovascular Consensus Standards Endorsement and Maintenance 2010 project addresses the following topic areas: coronary artery disease, atrial fibrillation, implantable cardioverter defibrillators (ICD), heart failure, and hypertension. Additionally, as part of this process, cardiovascular measures that were endorsed by NQF before June 2008 were evaluated under the maintenance process, providing the opportunity to harmonize specifications and to consider competing and related measures.

### What Was Endorsed

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NQF endorsed 39 measures suitable for public reporting and accountability.

Four of the 39 measures have been placed on "reserve status," meaning the measures are highly credible, reliable, and valid and have high levels of performance with little opportunity for improvement. These measures meet all of the NQF criteria except for one sub-criterion, (1b) relating to an opportunity for improvement. Measures are placed on "reserve status" because they address critical aspects of performance that should be periodically reassessed to ensure that high levels of performance are being maintained.

Measures were submitted by the Agency for Healthcare Research and Quality; the American College of Cardiology; American College of Cardiology Foundation; the American Heart Association; the American Medical Association; the Centers for Medicare and Medicaid Services; Minnesota Community Measurement; the National Committee for Quality Assurance; and the Physician Consortium for Performance Improvement (PCPI). The full list of measures is available at the end of this report.

### The Need these Measures Fill

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This project sought to identify and endorse measures that specifically address cardiovascular conditions for public reporting and quality improvement applicable to all settings of care. In addition, NQF-endorsed cardiovascular consensus standards that were endorsed prior to June 2008 have undergone a maintenance review.

Notably, this set of measures included several outcomes measures – measures that evaluate actual results of care – such as congestive heart failure mortality and controlling high blood pressure. Because outcomes measures go beyond simply taking stock of patient care processes, they are considered most relevant to patients and providers looking to improve care delivery.



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Additionally, recognizing that “all-or-none” composite measures, particularly for groups of processes of care applicable to most patients, would significantly enhance the cardiovascular portfolio, NQF endorsed three composites measures. One focused on optimal management of cardiac risk factors for patients with ischemic heart disease, and two focused on prescribing all indicated medications when discharging patients after percutaneous coronary intervention (PCI) or placement of an implantable cardioverter defibrillator.

### Potential Use

The endorsed measures are intended for public reporting and accountability purposes. They are also intended for quality improvement initiatives that specifically address cardiovascular conditions including hypertension, coronary artery disease, acute myocardial infarction, PCI, heart failure, atrial fibrillation, or any other heart disease and any treatments, diagnostic studies, interventions or procedures associated with these conditions.

The measures cover a broad range of patient populations over the age of 18. There are no pediatric measures included in this project.

Applicable care settings include:

- **Ambulatory Care** – Clinic; Emergency Department; Hospital Outpatient; Office
- **Nursing Home/Skilled Nursing Facility**
- **Hospital/Acute Care Facility**

### Project Perspectives

This project is the first of its kind to evaluate both new and previously endorsed measures simultaneously. This process has yielded a very important result in terms of developing a best-in-class portfolio of cardiac care performance measures. NQF will continue to rely on this simultaneous review process as one of its core strategies for cultivating its portfolio of endorsed performance measures.

**Table 1: Summary of Cardiovascular Measures Project**

Measures submitted and evaluated by the Steering Committee	59
Measures withdrawn by the developer for more testing and further refinement	0
Measures recommended for endorsement	39
Measures not recommended for endorsement	20

### Endorsed Measures

#### CORONARY ARTERY DISEASE - SECONDARY PREVENTION

##### **0076 Optimal vascular care (Minnesota Community Measurement)**

*Description:* Percentage of adult patients ages 18 to 75 who have ischemic vascular disease with optimally managed modifiable risk factors (LDL, blood pressure, tobacco-free status, daily aspirin use).

##### **0073 IVD: blood pressure management (NCQA)**

*Description:* The percentage of patients 18 years of age and older who were discharged alive with acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI) from January 1–November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had BP reported as under control <140/90.

##### **0068 IVD: use of aspirin or another antithrombotic (NCQA)**

*Description:* The percentage of patients 18 years and older with ischemic vascular disease who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous coronary interventions (PCI) from January 1–November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year and who had the following during the measurement year: Use of aspirin or another antithrombotic.

**0067 CAD: antiplatelet therapy (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who were prescribed aspirin or clopidogrel.

**0075 IVD- complete lipid profile and LDL control <100 (NCQA)**

*Description:* The percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous coronary interventions (PCI) from January 1–November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to measurement year, who had each of the following during the measurement year: Complete lipid profile and LDL-C control <100 mg/dL.

**0074 Chronic stable coronary artery disease: lipid control (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who have a LDL-C result <100 mg/dL OR patients who have a LDL-C result >100 mg/dL and have a documented plan of care to achieve LDL-C <100mg/dL, including at a minimum the prescription of a statin.

**0066 Chronic stable coronary artery disease: ACE inhibitor or ARB therapy—diabetes or left ventricular systolic dysfunction (LVEF < 40%) (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12-month period who also have diabetes or a current or prior LVEF <40% who were prescribed ACE inhibitor or ARB therapy.

**0070 Chronic stable coronary artery disease: blocker therapy—prior myocardial infarction (MI) or left ventricular systolic dysfunction (LVEF <40%) (AMA-PCPI)**

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

**0071 AMI: Persistence of beta blocker therapy after a heart attack (NCQA)**

*Description:* The percentage of patients age 18 years and older during the measurement year who were hospitalized and discharged alive July 1 of the year prior to the measurement year through June 30 of the measurement year with a diagnosis of acute myocardial infarction (AMI) and who received persistent beta-blocker treatment for six months after discharge.

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**CORONARY ARTERY DISEASE - ACUTE PHASE: ACUTE MYOCARDIAL INFARCTION AND PERCUTANEOUS CORONARY INTERVENTION**

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**0289 Median time to ECG (CMS)**

*Description:* Median time from emergency department arrival to ECG (performed in the ED prior to transfer) for acute myocardial infarction (AMI) or chest pain patients (with probable cardiac chest pain).

**0286 Aspirin at arrival [for patients being transferred] (CMS)**

*Description:* Percentage of emergency department acute myocardial infarction (AMI) patients or chest pain patients (with probable cardiac chest pain) without aspirin contraindications who received aspirin within 24 hours before ED arrival or prior to transfer.

**0288 Fibrinolytic therapy received within 30 minutes of ED arrival and Median time to fibrinolysis [for patients being transferred] (CMS)**

*Description:* Emergency department acute myocardial infarction (AMI) patients receiving fibrinolytic therapy during the ED stay and having a time from ED arrival to fibrinolysis of 30 minutes or less.

**0290 Median time to transfer to another facility for acute coronary intervention (CMS)**

*Description:* Median time from emergency department arrival to time of transfer to another facility for acute coronary intervention.

**0132 Aspirin at arrival for acute myocardial infarction\* (AMI) (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients who received aspirin within 24 hours before or after hospital arrival.

**0163 Primary PCI within 90 minutes of hospital arrival (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients with ST-segment elevation or LBBB on the ECG closest to arrival time receiving primary percutaneous coronary intervention (PCI) during the hospital stay with a time from hospital arrival to PCI of 90 minutes or less.

**0164 Fibrinolytic therapy received within 30 minutes of hospital arrival (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients with ST-segment elevation or LBBB on the ECG closest to arrival time receiving fibrinolytic therapy during the hospital stay and having a time from hospital arrival to fibrinolysis of 30 minutes or less.

**0137 ACEI or ARB for left ventricular systolic dysfunction- acute myocardial infarction (AMI) patients (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB at hospital discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.

**0355 Bilateral cardiac catheterization rate (IQI 25) (AHRQ)**

*Description:* Percent of discharges with heart catheterizations in any procedure field with simultaneous right and left heart (bilateral) catheterizations.

**0964 Therapy with aspirin, P2Y12 inhibitor and statin at discharge (ACCF)**

*Description:* Patients undergoing PCI who receive prescriptions for all medications (aspirin, P2Y12 and statins) for which they are eligible for at discharge.

**0133 PCI mortality (risk-adjusted) (ACC)**

*Description:* Risk-adjusted PCI mortality rate.

**0160 Beta blocker prescribed at discharge\* (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients who are prescribed a beta-blocker at hospital discharge.

**0142 Aspirin prescribed at discharge for AMI\* (CMS)**

*Description:* Percentage of acute myocardial infarction (AMI) patients who are prescribed aspirin at hospital discharge.

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**ATRIAL FIBRILLATION**

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**1524 Assessment of thromboembolic risk - (CHADS 2) (ACCF/AHA/PCPI)**

*Description:* Patients with nonvalvular atrial fibrillation or atrial flutter in whom assessment of thromboembolic risk factors using the CHADS2 risk criteria has been documented.

**1525 Chronic anticoagulation therapy (ACCF/AHA/AMA-PCPI)**

*Description:* Prescription of warfarin or another anticoagulant drug that is FDA approved for the prevention of thromboembolism for all patients with nonvalvular atrial fibrillation or atrial flutter at high risk for thromboembolism, according to CHADS2 risk stratification.

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**IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (ICD)**

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**1522 ACE/ARB therapy at discharge for ICD implant patients with LVSD (ACCF)**

*Description:* Proportion of ICD implant patients with a diagnosis of LVSD who are prescribed ACE-I or ARB therapy at discharge.

**1528 Beta blocker at discharge for ICD implant patients with a previous MI (ACCF)**

*Description:* Proportion of ICD implant patients with a diagnosis of previous myocardial infarction (MI) who are prescribed a beta blocker at discharge.

**1529 Beta blocker at discharge for ICD implant patients with LVSD (ACCF)**

*Description:* Proportion of ICD implant patients with a diagnosis of LVSD who are prescribed beta blocker therapy on discharge.

**0965 Patients with an ICD implant who receive prescriptions for all medications (ACE/ARB and beta blockers) for which they are eligible for at discharge (ACCF)**

*Description:* Proportion of patients with an ICD implant who receive prescriptions for all medications (ACE/ARB and beta blockers) for which they are eligible for at discharge (all-or-none composite measure of two medication classes).

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**HEART FAILURE**

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**0079 Heart failure: Left ventricular ejection fraction assessment (outpatient setting) (AMA-PCPI)**

*Description:* 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.

**0081 Heart failure: ACEI or ARB therapy for left ventricular systolic dysfunction (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40% who were prescribed ACE inhibitor or ARB therapy either within a 12-month period when seen in the outpatient setting or at hospital discharge.

**0083 Heart Failure: Beta-blocker therapy for left ventricular systolic dysfunction (AMA-PCPI)**

*Description:* Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40% who were prescribed beta-blocker therapy either within a 12-month period when seen in the outpatient setting or at hospital discharge.

**0135 Evaluation of left ventricular systolic dysfunction (CMS)\***

*Description:* Percentage of heart failure (HF) patients with documentation in the hospital

record that left ventricular systolic (LVS) function was evaluated before arrival, during hospitalization, or is planned for after discharge.

**0162 ACEI or ARB for left ventricular systolic dysfunction – heart failure patients (CMS)**

*Description:* Percentage of heart failure (HF) patients with left ventricular systolic dysfunction (LVSD) who are prescribed an ACEI or ARB at hospital discharge. For purposes of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS) function consistent with moderate or severe systolic dysfunction.

**0358 Congestive heart failure (CHF) mortality rate (IQI 16)(AHRQ)**

*Description:* Percent of discharges with principal diagnosis code of CHF with in-hospital mortality.

**0277 CHF admission (PQI 8) (AHRQ)**

*Description:* Percent of county population with an admissions for CHF.

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**HYPERTENSION**

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**0018 Controlling high blood pressure (NCQA)**

*Description:* The percentage of members 18–85 years of age who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (<140/90) during the measurement year. Use the Hybrid Method for this measure.

*\*Reserve status measures. To be put on reserve status a measure must be highly credible, reliable, and valid and have high levels of performance with little opportunity for improvement. These measures meet all of the NQF criteria except for one sub-criterion, (1b) relating to an opportunity for improvement. Performance can be reassessed in the future if necessary to ensure that performance does not decline.*



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1030 15TH STREET, NW, SUITE 800  
WASHINGTON, DC 20005  
WWW.QUALITYFORUM.ORG