

## Quality Measures Fact Sheet

### **Defect Free Care for Acute Myocardial Infarction (AMI) (NQF #2377)** *National Quality Strategy Domain: Making Care Safer*

Quality Measures Set: Alternate

Data Source: Registry

### **BPCI Advanced and Quality**

The Center for Medicare & Medicaid Innovation's (the CMS Innovation Center's) BPCI Advanced Model rewards health care providers for delivering services more efficiently, supports enhanced care coordination, and recognizes high quality care. Hospitals and clinicians should work collaboratively to achieve these goals, which have the potential to improve the BPCI Advanced Beneficiary experience and align to the CMS Quality Strategy goals of promoting effective communication and care coordination, highlighting best practices, and making care safer and more affordable. A goal of the BPCI Advanced Model is to promote seamless, patient-centered care throughout each Clinical Episode, regardless of who is responsible for a specific element of that care.

### **Background on AMI Care**

Acute myocardial infarctions (AMIs) are life-threatening events with significant potential for long term disability. Fortunately, a large and growing arsenal of interventions can improve the outcomes of patients who experience AMI.<sup>12</sup> The standard of care for AMI includes multiple steps that occur at different points in time, from diagnosis through the post discharge period. These standards vary for Non-ST-Elevation Myocardial Infarction (NSTEMI) and ST-Elevation Myocardial Infarction (STEMI).

### **CMS Innovation Center Rationale for Including the Defect Free Care for AMI Composite Measure in BPCI Advanced**

Recent evidence highlights significant gaps in care provided to AMI patients, and more consistent application of accepted standards of care could improve outcomes.<sup>13</sup> Hospitals and providers should work together to ensure that they treat AMI patients optimally throughout the Clinical Episode. The CMS Innovation Center selected the Defect Free Care for AMI composite measure for BPCI Advanced

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<sup>12</sup> Jneid, H., Addison, D., Bhatt, D. L., Fonarow, G. C., Gokak, S., Grady, K. L., Green, L. A., Heidenreich, P., Ho, M., Jurgens, C. Y., King, M. L., Kumbhani, D. J., and Panchoy, S. (2017). AHA/ACC clinical performance and quality measures for adults with ST-elevation and non-ST-elevation myocardial infarction. *Journal of the American College of Cardiology*, 70(16). Retrieved from: <http://www.onlinejacc.org/content/70/16/2048>.

<sup>13</sup> Williams, S. C., Schmaltz, S. P., Morton, D. J., Koss, R. G., and Loeb, J. M. (2005). Quality of care in U.S. hospitals as reflected by standardized measures, 2002–2004. *New England Journal of Medicine*, 353, 255–64. Retrieved from: <https://www.nejm.org/doi/10.1056/NEJMsa043778>.

because it indicates whether health care teams document a patient’s care as meeting 11 elements of guideline-based optimal AMI care.

## Applicable Clinical Episodes

The Defect Free Care for AMI composite measure is included in the Alternate Quality Measures Set and applies to the following inpatient Clinical Episode<sup>14</sup>:

- AMI: Medicare Severity–Diagnosis-Related Groups (MS-DRGs) 280, 281, and 282

## Measure Specifications

The Defect Free Care for AMI measure selected for BPCI Advanced follows National Quality Forum (NQF) #2377 measure specifications. It is a composite measure that estimates the proportion of AMI patients who receive “perfect care” based on their eligibility for each of the individual performance measures in the composite. That is, to achieve the composite measure score, the patients must meet all eligible care opportunities. The registry will calculate Acute Care Hospital (ACH) level performance for all patients included in the denominator. The term “patients” refers to people 18 years and older who undergo a procedure at the hospital associated with the Clinical Episodes from the “Applicable Clinical Episodes” section, not limited to Medicare beneficiaries or BPCI Advanced Beneficiaries. For Physician Group Practices (PGPs), the registry will calculate the measure as specified at individual hospitals, then the CMS Innovation Center will weight measure performance based on PGP Clinical Episode volume for each ACH where a PGP triggers an episode.

## Denominator

The denominator for the Defect Free Care for AMI measure includes all patients 18 or older who are AMI patients in the registry, regardless of age or payer status. This measure is not limited to Medicare beneficiaries or BPCI Advanced Beneficiaries. There are two denominator populations: STEMI and NSTEMI. These two denominator populations are necessary because the guidelines-based care for STEMI and NSTEMI populations differ.

The exclusions for this measure include patients:

- younger than 18 years of age
- who were ineligible for a defect-free care measure (e.g., contraindications, clinical studies)

## Numerator

There are two numerators as well: STEMI and NSTEMI. Each numerator of the Defect Free Care for AMI composite measure includes the number of perfect care opportunities provided to patients in each denominator. Providers must fulfill all the care opportunities for which the patient is eligible to achieve a composite measure score. The care opportunities for the STEMI population include:

1. Aspirin at arrival
2. Evaluation of left ventricular (LV) systolic function
3. Reperfusion therapy
4. Door-to-needle time
5. First medical contact-device time

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<sup>14</sup> MS-DRGs are up to date as of Model Year 3 (2020) and will be updated for Model Year 4 as needed.

6. Aspirin at discharge
7. Beta blocker at discharge
8. Angiotensin Converting Enzyme Inhibitors (ACE-I) or Angiotensin II Receptor Blockers (ARB) for left ventricular systolic dysfunction (LVSD) at discharge
9. High-intensity statin at discharge
10. Rehabilitation patient referral from an inpatient setting
11. P2Y12 inhibitor at discharge
12. Door-in door-out time
13. Time to primary Percutaneous Cardiac Intervention (PCI) among transferred patients
14. Immediate angiography after cardiac arrest

The care opportunities for the NSTEMI population include:

1. Aspirin at arrival
2. Evaluation of LV systolic function
3. Aspirin at discharge
4. Beta blocker at discharge
5. ACE-I or ARB for LVSD at discharge
6. High-intensity statin at discharge
7. Rehabilitation patient referral from an inpatient setting
8. Early troponin measurement after NSTEMI
9. P2Y12 inhibitor at discharge

## Measure Submission

BPCI Advanced Participants may submit this measure through the American College of Cardiology (ACC) National Cardiovascular Data Registry (NCDR®) Chest Pain – MI Registry™ or American Heart Association® (AHA) Get With The Guidelines (GWTG)®-Coronary Artery Disease Registry.

## Revisions to the Published Specifications

This registry measure specification reflects the NQF published specifications (e.g., exceptions) as well as annual updates provided to NQF by the measure steward to maintain endorsement status.

## Composite Quality Score

The Defect Free Care AMI measure is one component of the BPCI Advanced Composite Quality Score (CQS) calculation. The CMS Innovation Center uses the CQS to adjust a portion of any Positive Total Reconciliation Amount and any Negative Total Reconciliation Amount. The CQS adjustment will not adjust the Positive Total Reconciliation Amount down by more than 10 percent, nor will it adjust the Negative Total Reconciliation Amount up by more than 10 percent. More information is available at the BPCI Advanced website provided below.

## Other Resources

Organization/Resource	Website Address
NQF #2377 specifications	<a href="http://www.qualityforum.org/QPS/2377">www.qualityforum.org/QPS/2377</a>
BPCI Advanced	<a href="https://innovation.cms.gov/initiatives/bpci-advanced">https://innovation.cms.gov/initiatives/bpci-advanced</a>
ACC NCDR®	<a href="https://cvquality.acc.org/NCDR-Home/registries">https://cvquality.acc.org/NCDR-Home/registries</a>
ACC NCDR® Chest Pain – MI Registry™	<a href="https://cvquality.acc.org/NCDR-Home/registries/hospital-registries/chest-pain-mi-registry">https://cvquality.acc.org/NCDR-Home/registries/hospital-registries/chest-pain-mi-registry</a>
AHA® GTWG®	<a href="https://www.heart.org/en/professional/quality-improvement">https://www.heart.org/en/professional/quality-improvement</a>
AHA® GTWG® CAD	<a href="https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-coronary-artery-disease">https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-coronary-artery-disease</a>