

The Centers for Medicare & Medicaid Services (CMS) seeks stakeholder comments on the following electronic clinical quality measure (eCQM) under development:

**TITLE:**

Appropriate Treatment for ST-Segment Elevation Myocardial Infarction (STEMI) Patients in the Emergency Department (ED)

**DESCRIPTION:**

The percentage of ED patients with a diagnosis of ST-segment elevation myocardial infarction who received appropriate treatment. The measure will be calculated using electronic health record (EHR) data and is intended for use at the facility level in a CMS program, through which it may be publically reported.

**NOTE:** This document provides a draft description of the measure. We seek comments from the public about the measure specification and specific questions outlined in the Questions section of this document. See the *Stratification, Risk Adjustment, Clinical Recommendation Statement, Definition, Initial Population, and Denominator Exclusions* sections of the narrative measure specifications for more details.

**MEASURE RATIONALE:**

Studies have shown that delays in the treatment of AMI leads to increased risk of in-hospital mortality and morbidity, with nearly two lives per 1,000 patients lost per hour of delay in treatment (Sohlpour & Yusuf, 2014; Fibrinolytic Therapy Trialists' Collaborative Group, 1994). For the fibrinolytic therapy treatment arm, the American Heart Association (AHA) estimates that 65 lives will be saved per 1,000 patients if treatment is administered within the first hour of symptom onset, and 131 lives will be saved per 1,000 patients treated if fibrinolytic therapy is delivered within the first three hours (O'Connor et al., 2010).

The total ischemic time—that is, the time from onset of STEMI symptoms to the initiation of some form of reperfusion therapy—is the principal determinant of health outcomes for patients with an AMI, so timely care is essential to minimize effects of disease morbidity and reduce mortality for this population. Primary percutaneous coronary intervention (PCI) is the preferred treatment approach, with guidelines recommending initiation of PCI within 120 minutes from first medical contact (O'Gara et al., 2013). In situations in which it is unlikely or impossible for a patient to receive primary PCI within the 120-minute timeframe, fibrinolytic therapy may be used for reperfusion and should be rapidly administered to reduce mortality and minimize morbidity; guidelines recommend that fibrinolytic therapy administration occur within 30 minutes of hospital arrival (O'Gara et al., 2013).

Implementation of an eCQM addressing appropriateness of care for STEMI patients in the ED has the potential to improve the delivery of care in alignment with current clinical practice guidelines, while reducing adverse health outcomes such as mortality, bleeding events, and reinfarction. Use of the potential eCQM could also reduce burden on facilities currently measured using the chart-abstracted *Fibrinolytic Therapy Received within 30 Minutes of ED Arrival* (OP-2) measure. As part of the potential eCQM, the initial patient population would also be expanded for measure calculation.

## **MEASURE INTENT:**

The goal of the STEMI eCQM is to provide clinicians with information on the rate of ED patients with a STEMI diagnosis who received appropriate treatment for STEMI. This measure could evaluate a potential gap in appropriate care for some of the most vulnerable patients treated for STEMI, including those receiving care in rural and critical access communities. Current clinical practice guidelines recommend STEMI patients receive PCI within 90 minutes of ED arrival at a PCI-capable hospital or fibrinolytic therapy within 30 minutes of ED arrival at a non-PCI capable hospital; PCI is often not an easily accessible treatment option for facilities in rural locations and those considered critical access hospitals.

## **MEASURE HISTORY:**

OP-2 (Fibrinolytic Therapy Received within 30 Minutes of ED Arrival) was originally developed by the Oklahoma Foundation for Medical Quality in 2008 for use in CMS's Hospital Outpatient Quality Reporting (OQR) Program. The National Quality Forum endorsed the measure in November 2007 and reendorsed it in January 2012; OP-2 lost endorsement in 2016, primarily because of the small number of facilities that could report the measure and the fact the OP-2 did not measure appropriate AMI care using PCI (National Quality Forum, 2017).

CORE and Lewin recommended the respecification of OP-2 as an eCQM in January 2017; CMS approved this effort in June 2017. Development of the measure should conclude in 2019.

## **NEXT STEPS FOR MEASURE DEVELOPMENT:**

Following the close of the public comment period, CORE and Lewin will meet with a TEP convened to support respecification of this measure to review stakeholders' comments and determine if revisions to the measure specifications are needed.

## **FEEDBACK:**

CMS is seeking feedback on all components of the potential measure, including the following topics:

- Appropriate definitions for the measure's numerator actions, including transfer time and percutaneous coronary intervention (PCI) performed on site;
- Clinical or patient-centered reasons for non-administration of fibrinolysis;
- Conditions appropriate for exclusion from the measure denominator;
- The usefulness of the STEMI eCQM to assess and improve the quality of care for STEMI patients;
- The ability of the measure to assess facility performance;
- The potential for unintended consequences following implementation of the STEMI eCQM;
- Whether data elements for the STEMI eCQM are available in structured, extractable fields in EHR systems; and,
- Whether any additional exclusions should be added to the STEMI eCQM's measure specifications.

## REFERENCES:

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