NCDR® Public Reporting Companion Guide

Acute Myocardial Infarction (AMI) Measures

Chest Pain – MI Registry™

The mission of the NCDR voluntary hospital public reporting program, as defined by the American College of Cardiology (ACC) along with its partner's the Heart Rhythm Society (HRS) and The Society for Cardiovascular Angiography and Interventions (SCAI), is to:

- Monitor the quality of cardiovascular patient care being provided in a transparent manner.
- Ensure reporting is based on data that is of high quality, is administered with minimal collection burden as cost-effectively as reasonable, and employs clinically valid and methodologically sound measures.
- Provide measures that are actionable and consistent with the Triple Aim of better outcomes, better care and lower costs without causing unintended consequences in access to care for any population.
- Focus on measures that include aspects of care where the patient can be engaged as part of the solution OR where there is clear evidence that individual patient risk factors have an effect on the care being provided, so should be understood to the patient.
- Foster relationships of trust through collaboration between patients and their cardiovascular care team by presenting information that is credible, understandable, and actionable.
- Empower broader discussions at the community level in improving not only the overall care being provided to individual patients but the health and wellbeing of populations.
- Enable patients and cardiovascular professionals to advocate for policies at the federal and state level that support achieving the Triple Aim.

This mission in providing open access to information on quality of care is championed by cardiovascular physicians and the members of the care team, including nurses, nurse practitioners, and physicians assistants, as an ethical responsibility of the profession.

Companion Guide to
NCDR® Public Reporting
Acute Myocardial Infarction (AMI) Measures

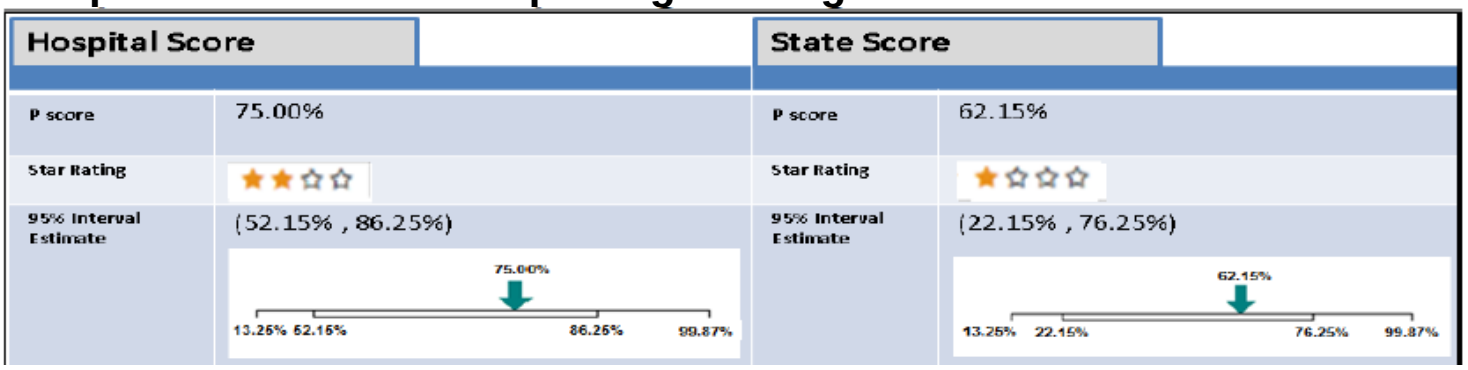
Purpose: This document is a Companion guide for the American College of Cardiology (ACC) National Cardiovascular Data Registry (NCDR®) – Acute Myocardial Infarction (AMI) Measures. It contains an explanation of how to read and interpret measure scores as well as the details of individual metric calculation.

Document Version and Change History

Version	Effective Date	Notes/Changes
1.0	August 10, 2018	Initial Deployment Version
1.1	December 10, 2018	Edits made to the language of Inclusion and Exclusion Criteria

Contents

Interpretation of Public Reporting Scoring



Metric Scoring: All metrics are scored using statistical models developed from the most recent calendar year data. Quality performance is represented as a percentage ranging between 0 and 100% (called a "P score") and can be thought of as the percentage of time the metric guideline is followed. For each hospital two P scores are displayed.

1. Hospital P Score:
- Each hospital receives its own quality performance (P) score.
- This score can be used to assess individual hospital performance.
- **A Higher Hospital P Score means better individual hospital quality performance.**

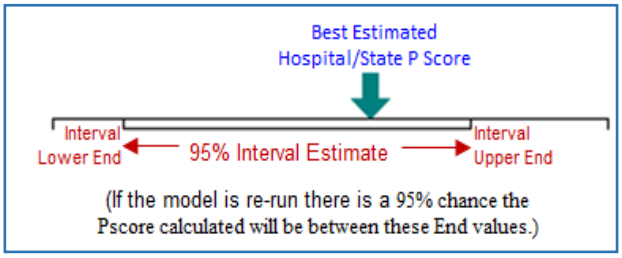
2. State P Score:
- Each US state receives a quality performance (P) score.
- This score can be used to assess performance of all the ACC hospitals within a state.
- All hospitals within the same state will receive the same State P Score.
- **A higher State P Score means better quality performance for all hospitals across the state.**

Overall Defect Free Care Composite (All Heart Attack Care)	
★☆☆☆	0 - 49.99%
★★☆☆	50.00 - 74.99%
★★★☆	75.00 - < 89.99%
★★★★	90.00% - <100.00%

STEMI Performance Compasite (Urgent Heart Attack Care)	
★☆☆☆	0 - 74.99%
★★☆☆	75.00 - 89.99%
★★★☆	90.00 - < 94.99%
★★★★	95.00% - <100.00%

Star Ratings: To more easily interpret the quality performance score, hospitals and states are grouped into four (4) star categories. These star categories are set based on the recommended performance (P score) that all hospitals should achieve in their care of patients.

Example: A hospital receiving a P score of 79.00% on the STEMI Performance Composite will receive a 2 star rating as its score falls in the 2 star range of 75.00% – 95.00%.



Interval Estimate: The P score for a metric is based on the data available and therefore the scoring model accuracy depends on the amount of data for a hospital/state. There will always be some degree of uncertainty in the single P score given. The uncertainty in the P score is highest when a hospital/state has few data points and increases as more data becomes available. The P score will not exactly match the value for the metric provided in the registry national outcome report for the site. The statistical P Score shifts the site toward the registry mean based on the number of cases reported.

The degree of belief that can be placed in an individual P score can be shown using a figure called an 'interval estimate'. The interval is displayed as a box drawn between a Lower End value and an Upper End value. If the model were to be re-run, there is a 95% chance the P score calculated would fall in the interval between the two End values.

A smaller confidence interval box, or distance between the Lower End and Upper End values, indicates a greater confidence in the single P score given to the hospital/state. **The best estimate of the true value is the P score assigned and shown with the green arrow.**

Minimum Data: To partially account for uncertainty when less data is available, a minimum number of cases has been established in order for the model to assign a P score. By requiring a minimum amount of data we ensure a reasonable degree of confidence that any score given is truly representative of the quality of performance at that site. The minimum number of cases per year to receive a P score is 40 cases.

Inclusion and Exclusion Criteria: All hospital metrics are calculated using only the data submissions which have passed the Data Quality Report Completeness Assessment and have a "GREEN" status. Sites must report at least 3 quarters of publicly reported data with either a "Limited All AMI" or "Premier" Submission Status with a minimum of an annual volume threshold of at least 40 AMI patients for a given hospital to be eligible for a star rating. At the state level, at least one eligible site must agree to publicly report to present a state-level score. The "Limited All AMI" or "Premier" *submission status* and the minimal annual volume threshold are consistent with the current criteria for the Chest Pain - MI Registry Performance Achievement Award *(however, please note that the Performance Achievement Award requires all quarters of "GREEN" status for either the "Limited All AMI" or "Premier" Submission).*

Public Reporting Measure Details

This section provides details regarding the calculation process for each public reporting measure.

Section I: Reporting Time Period

For the measures presented data results were calculated base on patients discharge from the reported hospital during the following time period:

- Acute Myocardial Infarction Public Reporting Measures: Jan 1 2017 – Dec 31 2017

Section II: Acute Myocardial Infarction Public Reporting Measures

Chest Pain – MI Registry Pulic Reporting Metrics are from Chest Pain – MI Registry™ Version 2.4.2 and pertain to hospitals treating patients with acute myocardial infarction.

Measure: Overall Defect Free Care (All Heart Attack Care).

2. Overall defect free care **Description:** The proportion of patients that receive "perfect care" based upon their eligibility for each performance measure	
Numerator	Count one for all performance measure opportunities that were met. ALL performance measures must be met in order to be included in the numerator. (All or nothing composite measure).
Denominator	Count of performance measure opportunities.
Inclusion Criteria	Data from submissions that pass NCDR data inclusion thresholds
Exclusion Criteria	Per the individual performance measure.

Time period	Four (4) consecutive quarters (example: the 2013 q4 report would include q1-4). This is also called “rolling four quarters (R4Q).
Relevant Citations	This measure has been endorsed by the National Quality Forum, Measure #2377 (http://www.qualityforum.org/Measures_List.aspx)

Endorsed by the National Quality Forum and appropriate for public reporting

Measure: STEMI Performance Composite (Urgent Heart Attack Care)

3. STEMI performance composite. **Description:** Proportion of performance measure opportunities that were met among eligible opportunities.	
Numerator	Count performance measure opportunities that were met.
Denominator	Count of performance measure opportunities.
Inclusion Criteria	Data from submissions that pass NCDR data inclusion thresholds. Measures include: • Aspirin at Arrival • Evaluation of LV Systolic Function • Reperfusion Therapy (STEMI only) • Time to Fibrinolytics (STEMI only) • Time to Primary PCI (STEMI only) • Aspirin at Discharge • Beta Blocker at Discharge • ACE-I or ARB for LVSD at Discharge • Statin at Discharge • Adult Smoking Cessation Advice • Cardiac Rehab Referral
Exclusion Criteria	Per the individual performance measure.
Time period	Four (4) consecutive quarters (example: the 2013 q4 report would include q1-4). This is also called “rolling four quarters (R4Q).