



## Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

### Brief Measure Information

**NQF #:** 0090

**Corresponding Measures:**

**De.2. Measure Title:** Emergency Medicine: 12-Lead Electrocardiogram (ECG) Performed for Non-Traumatic Chest Pain

**Co.1.1. Measure Steward:** AMA-convened Physician Consortium for Performance Improvement

**De.3. Brief Description of Measure:** Percentage of patients aged 40 years and older with an emergency department discharge diagnosis of non-traumatic chest pain who had a 12-lead electrocardiogram (ECG) performed

**1b.1. Developer Rationale:** Per year, over 5 million patients present to emergency departments with chest pain in the United States; of those, more than 1.4 million patients are hospitalized for ST-segment elevation myocardial infarction (Gibler et al). Upon presentation of a patient with chest pain, it is necessary to determine the issue before a clinician can decide on the appropriate course of action. Research has found that the 12-lead ECG, used in tandem with patient history and physical examination, is instrumental in diagnosing a patient presenting with chest pain (Lee et al). Savonitto et al found, through retrospective analysis of ECGs, that "the ECG category and creatine kinase level at admission remained highly predictive of death and myocardial infarction after multivariate adjustment for the significant baseline predictors of events.

Gibler WB, Cannon CP, Blomkalns AL, Char DM, Drew BJ, Hollander JE, Jaffe AS, Jesse RL, Newby LK, Ohman EM, Peterson ED, Pollack CV. Practical Implementation of the Guidelines for Unstable Angina/Non-ST-Segment Elevation Myocardial Infarction in the Emergency Department. *Circulation*.2005; 111: 2699-2710. Available at: <http://circ.ahajournals.org/content/111/20/2699.full>

Lee TH, Cook E, Weisberg M, Sargent R, Wilson C, Goldman L. Acute Chest Pain in the Emergency Room: Identification and Examination of Low-Risk Patients. *Arch Intern Med*. 1985;145(1):65-69. doi:10.1001/archinte.1985.00360010085013

Savonitto S, Ardissino D, Granger CB, Morando G, Prando MD, Mafri A, Cavallini C, Melandri G, Thompson TD, Vahanian A, Ohman EM, Califf RM, Van de Werf F, Topol EJ. Prognostic value of the admission electrocardiogram in acute coronary syndromes. *JAMA*. 1999; 281: 707-713.

**S.4. Numerator Statement:** Patients who had a 12-Lead ECG performed

**S.6. Denominator Statement:** All patients aged 40 years and older with an emergency department discharge diagnosis of non-traumatic chest pain

**S.8. Denominator Exclusions:** Medical reasons for not performing a 12-lead ECG  
Patient reasons for not performing a 12-lead ECG

**De.1. Measure Type:** Process

**S.17. Data Source:** Electronic Health Records, Other

**S.20. Level of Analysis:** Clinician : Group/Practice

**IF Endorsement Maintenance – Original Endorsement Date:** May 01, 2007 **Most Recent Endorsement Date:** Jun 29, 2015

**IF this measure is included in a composite, NQF Composite#/title:**

**IF this measure is paired/grouped, NQF#/title:**

**De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?** not applicable

## 1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. **Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.**

### 1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

[1a\\_NQF\\_Measure\\_0090\\_Evidence\\_Attachment.docx](#)

#### 1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?

Please update any changes in the evidence attachment in red. Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. If there is no new evidence, no updating of the evidence information is needed.

### 1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

**1b.1. Briefly explain the rationale for this measure** (e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)

*IF a PRO-PM* (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

*IF a COMPOSITE* (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and provide rationale for composite in question 1c.3 on the composite tab.

Per year, over 5 million patients present to emergency departments with chest pain in the United States; of those, more than 1.4 million patients are hospitalized for ST-segment elevation myocardial infarction (Gibler et al). Upon presentation of a patient with chest pain, it is necessary to determine the issue before a clinician can decide on the appropriate course of action. Research has found that the 12-lead ECG, used in tandem with patient history and physical examination, is instrumental in diagnosing a patient presenting with chest pain (Lee et al). Savonitto et al found, through retrospective analysis of ECGs, that “the ECG category and creatine kinase level at admission remained highly predictive of death and myocardial infarction after multivariate adjustment for the significant baseline predictors of events.

Gibler WB, Cannon CP, Blomkalns AL, Char DM, Drew BJ, Hollander JE, Jaffe AS, Jesse RL, Newby LK, Ohman EM, Peterson ED, Pollack CV. Practical Implementation of the Guidelines for Unstable Angina/Non-ST-Segment Elevation Myocardial Infarction in the Emergency Department. *Circulation*.2005; 111: 2699-2710. Available at: <http://circ.ahajournals.org/content/111/20/2699.full>

Lee TH, Cook E, Weisberg M, Sargent R, Wilson C, Goldman L. Acute Chest Pain in the Emergency Room: Identification and Examination of Low-Risk Patients. *Arch Intern Med*. 1985;145(1):65-69. doi:10.1001/archinte.1985.00360010085013

Savonitto S, Ardissino D, Granger CB, Morando G, Prando MD, Mafri A, Cavallini C, Melandri G, Thompson TD, Vahanian A, Ohman EM, Califf RM, Van de Werf F, Topol EJ. Prognostic value of the admission electrocardiogram in acute coronary syndromes. *JAMA*. 1999; 281: 707–713.

**1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis.** (*This is required for maintenance of endorsement.* Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b) under Usability and Use.

[CMS Physician Quality Reporting Initiative:](#)

Data Source: This measure was used in the 2010 CMS Physician Quality Reporting Initiative/System. The data shows 97.05% is the aggregate performance rate in the total patient population and 95.16% is the mean performance rate of Tax Identification Number/NPI's. A total of 69,602 NPI's submitted PQRS information for this measure. It is important to note that PQRS is currently a voluntary reporting program, with about 29% of eligible professionals participating using any reporting option in 2011 and approximately 66% of emergency medicine eligible professionals participating using the claims individual measures reporting option, and performance rates may not be nationally representative.

Confidential CMS PQRI 2010 Performance Information by Measure. Jan 2010-Feb 2011 TAP file

10th percentile: 88.37%  
25th percentile: 96.55%  
50th percentile: 100%  
75th percentile: 100%  
90th percentile: 100%

Exception Rate: 1%  
Mean Performance Score: 95.16%  
Maximum Performance Score: 100%  
Interquartile Range: 3.45%

CMS Physician Quality Reporting Initiative:

Data Source: This measure was used in the 2008 CMS Physician Quality Reporting Initiative/System. There data demonstrates 77.42% is the aggregate performance rate in the total patient population. A total of 33,837 NPI's submitted PQRS information for this measure.

Confidential CMS PQRI 2007, 2008 Performance Information by Measure. July-June TAP file

10th percentile: 36.25%  
25th percentile: 68.18%  
50th percentile: 88.89%  
75th percentile: 100%  
90th percentile: 100%

Exception Rate: 0.3%  
Maximum Performance Score: 100%  
Interquartile Range: 31.82%

CMS Physician Quality Reporting Initiative:

Data Source: This measure was used in the 2007 CMS Physician Quality Reporting Initiative/System. 77.16% is the aggregate performance rate in the total patient population. A total of 23,723 NPI's submitted PQRS information for this measure.

Confidential CMS PQRI 2007, 2008 Performance Information by Measure. July-June TAP file

10th percentile: 48.08%  
25th percentile: 73.33%  
50th percentile: 91.67%  
75th percentile: 100%  
90th percentile: 100%

Exception Rate: 0.3%  
Maximum Performance Score: 100%  
Interquartile Range: 26.67%

**1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the**

literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

2010 PQRS data: A total of 69,602 NPI's submitted PQRS information for this measure.

Citation: Confidential CMS PQRI 2010 Performance Information by Measure. Jan 2010-Feb 2011 TAP file

2008 PQRS Data: A total of 33,837 NPI's submitted PQRS information for this measure.

Citation: Confidential CMS PQRI 2007, 2008 Performance Information by Measure. July-June TAP file

2007 PQRS Data: A total of 23,723 NPI's submitted PQRS information for this measure.

Citation: Confidential CMS PQRI 2007, 2008 Performance Information by Measure. July-June TAP file

**1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability.** (*This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.*) For measures that show high levels of performance, i.e., "topped out", disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b) under Usability and Use.

As described in question 1.b2, the PQRS program periodically provides us with confidential performance data for this measure. However, this data does not include the information on race/ethnicity, gender, age or any other population groups that would be required to evaluate disparities. However, research shows that older, female, and nonwhite patients are more likely to experience treatment delays for STEMI. Additionally, patients in rural areas had significantly longer times to treatment. This delay is linked to the ability of emergency personnel to deliver ECGs in the field (Nallamothu et al), and demonstrates a disparity for patients presenting with non-traumatic chest pain.

Nallamothu BK, Bates ER, Herrin J, Wang Y, Bradley EH, Krumholz HM. Times to treatment in transfer patients undergoing primary percutaneous coronary intervention in the United States: National Registry of Myocardial Infarction (NRMII)-3/4 analysis. *Circulation*. 2005;111:761-767

**1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4**

As stated above, PQRS data does not include the information on race/ethnicity, gender, age, or any other population groups that would be required to evaluate disparities.

## 2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

**2a.1. Specifications** The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

**De.5. Subject/Topic Area** (check all the areas that apply):

Cardiovascular

**De.6. Non-Condition Specific**(check all the areas that apply):

**De.7. Target Population Category** (Check all the populations for which the measure is specified and tested if any):

**S.1. Measure-specific Web Page** (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

The specifications for this measure are attached with this form. Additional measure information can be found at <http://www.ama-assn.org/apps/listserv/x-check/qmeasure.cgi?submit=PCPI>.

**S.2a. If this is an eMeasure**, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is not an eMeasure Attachment:

**S.2b. Data Dictionary, Code Table, or Value Sets** (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: [S2b\\_ECG\\_VALUESETS\\_ACEP-AMA-PCPI.xlsx](#)

**S.3.1. For maintenance of endorsement:** Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

**S.3.2. For maintenance of endorsement**, please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

Not applicable.

**S.4. Numerator Statement** (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

[Patients who had a 12-Lead ECG performed](#)

**S.5. Numerator Details** (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

12-Lead ECG:

[LOINC: 34534-8- EKG 12 channel panel](#)

[See eSpecification attached in appendix field A.1.](#)

**S.6. Denominator Statement** (Brief, narrative description of the target population being measured)

[All patients aged 40 years and older with an emergency department discharge diagnosis of non-traumatic chest pain](#)

**S.7. Denominator Details** (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Diagnosis:

ICD-9 CM: 413.0, 413.1, 413.9, 786.50, 786.51, 786.52, 786.59

ICD-10 CM: I20.1, I20.8, I20.9, I25.111, I25.118, I25.119, I25.701, I25.708, I25.709, I25.711, I25.718, I25.719, I25.721, I25.728, I25.729, I25.731, I25.738, I25.739, I25.751, I25.758, I25.759, I25.761, I25.768, I25.769, I25.791, I25.798, I25.799, R07.1, R07.2, R07.81, R07.82, R07.89, R07.9

Descriptors are included in code table attached in S2b.

SNOMED-CT: Code list is longer than 1 page; see Code table attached in S2b; also included in eSpecification in Appendix A.1.

AND:

Encounter

CPT: 99281, 99282, 99283, 99284, 99285

SNOMED-CT: 4525004-Emergency department patient visit (procedure)

Also, see eSpecification attached in appendix field A.1.

See eSpecification attached in appendix field A.1.

**S.8. Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*

Medical reasons for not performing a 12-lead ECG

Patient reasons for not performing a 12-lead ECG

**S.9. Denominator Exclusion Details** *(All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)*

The PCPI exception methodology uses three categories of reasons for which a patient may be removed from the denominator of an individual measure. These measure exception categories are not uniformly relevant across all measures; for each measure, there must be a clear rationale to permit an exception for a medical, patient, or system reason. Examples are provided in the measure exception language of instances that may constitute an exception and are intended to serve as a guide to clinicians. For measure #0090, exceptions may include medical reason(s), patient reason(s), or system reason(s) for the patient not receiving a 12-lead ECG when presenting with non-traumatic chest pain. Where examples of exceptions are included in the measure language, value sets for these examples are developed and included in the eSpecifications. Although this methodology does not require the external reporting of more detailed exception data, the PCPI recommends that physicians document the specific reasons for exception in patients' medical records for purposes of optimal patient management and audit-readiness. The PCPI also advocates the systematic review and analysis of each physician's exceptions data to identify practice patterns and opportunities for quality improvement. Additional details by data source are as follows:

Denominator exceptions:

Code list longer than 1 page; see excel file attached in S2b.

See also eSpecification attached in appendix field A.1.

Denominator exclusions:

None

**S.10. Stratification Information** *(Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)*

Consistent with CMS' Measures Management System Blueprint and recent national recommendations put forth by the IOM and NQF to standardize the collection of race and ethnicity data, we encourage the results of this measure to be stratified by race, ethnicity, administrative sex, payer and primary written and spoken language, and have included these variables as recommended data elements to be collected.

**S.11. Risk Adjustment Type** (Select type. Provide specifications for risk stratification in measure testing attachment)

No risk adjustment or risk stratification

If other:

**S.12. Type of score:**

Rate/proportion

If other:

**S.13. Interpretation of Score** (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

**S.14. Calculation Algorithm/Measure Logic** (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

To calculate performance rates:

- 1) Find the patients who meet the initial patient population (ie, the general group of patients that a set of performance measures is designed to address).
- 2) From the patients within the initial patient population criteria, find the patients who qualify for the denominator (ie, the specific group of patients for inclusion in a specific performance measure based on defined criteria). Note: in some cases the initial patient population and denominator are identical.
- 3) From the patients within the denominator, find the patients who qualify for the Numerator (ie, the group of patients in the denominator for whom a process or outcome of care occurs). Validate that the number of patients in the numerator is less than or equal to the number of patients in the denominator
- 4) From the patients who did not meet the numerator criteria, determine if the physician has documented that the patient meets any criteria for exception when exceptions have been specified [for this measure: medical reason(s) or patient reason(s). If the patient meets any exception criteria, they should be removed from the denominator for performance calculation. --Although the exception cases are removed from the denominator population for the performance calculation, the exception rate (ie, percentage with valid exceptions) should be calculated and reported along with performance rates to track variations in care and highlight possible areas of focus for QI.

If the patient does not meet the numerator and a valid exception is not present, this case represents a quality failure.

Calculation algorithm is included in attachment A.1.

**S.15. Sampling** (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

Not applicable. The measure is not based on a sample.

**S.16. Survey/Patient-reported data** (If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

Not applicable. The measure is not based on a survey.

**S.17. Data Source** (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.18.

Electronic Health Records, Other

**S.18. Data Source or Collection Instrument** (Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data is collected.)

IF a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

Not applicable.

**S.19. Data Source or Collection Instrument** (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

Available in attached appendix at A.1

**S.20. Level of Analysis** (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Clinician : Group/Practice

**S.21. Care Setting** (Check *ONLY* the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital, Other

If other: Emergency Department

**S.22. COMPOSITE Performance Measure** - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

Not applicable.

**2. Validity – See attached Measure Testing Submission Form**

[NQF\\_Testing\\_Attachment\\_Revised\\_-\\_ECG\\_Non-Traumatic\\_Chest\\_Pain.docx](#)

**2.1 For maintenance of endorsement**

*Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. (Do not remove prior testing information – include date of new information in red.)*

**2.2 For maintenance of endorsement**

*Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. (Do not remove prior testing information – include date of new information in red.)*

**2.3 For maintenance of endorsement**

*Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes SDS factors is no longer prohibited during the SDS Trial Period (2015-2016). Please update sections 1.8, 2a2, 2b2, 2b4, and 2b6 in the Testing attachment and S.14 and S.15 in the online submission form in accordance with the requirements for the SDS Trial Period. NOTE: These sections must be updated even if SDS factors are not included in the risk-adjustment strategy. If yes, and your testing attachment does not have the additional questions for the SDS Trial please add these questions to your testing attachment:*

*What were the patient-level sociodemographic (SDS) variables that were available and analyzed in the data or sample used? For example, patient-reported data (e.g., income, education, language), proxy variables when SDS data are not collected from each patient (e.g. census tract), or patient community characteristics (e.g. percent vacant housing, crime rate).*

*Describe the conceptual/clinical and statistical methods and criteria used to select patient factors (clinical factors or sociodemographic factors) used in the statistical risk model or for stratification by risk (e.g., potential factors identified in the literature and/or expert panel; regression analysis; statistical significance of  $p < 0.10$ ; correlation of  $x$  or higher; patient factors should be present at the start of care)*

*What were the statistical results of the analyses used to select risk factors?*

*Describe the analyses and interpretation resulting in the decision to select SDS factors (e.g. prevalence of the factor across measured entities, empirical association with the outcome, contribution of unique variation in the outcome, assessment of between-unit effects and within-unit effects)*

**3. Feasibility**

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

**3a. Byproduct of Care Processes**

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

**3a.1. Data Elements Generated as Byproduct of Care Processes.**

Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score)

If other:

### 3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

**3b.1. To what extent are the specified data elements available electronically in defined fields** (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields) Update this field for **maintenance of endorsement**.

ALL data elements are in defined fields in electronic health records (EHRs)

**3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.** For **maintenance of endorsement**, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

**3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.**

Attachment: 3b3\_NQF\_ACEP\_Feasibility-\_ECG\_Non-traumatic\_Chest\_Pain.docx

### 3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

**3c.1. Required for maintenance of endorsement.** Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

**IF a PRO-PM, consider implications for both individuals providing PRO data (patients, service recipients, respondents) and those whose performance is being measured.**

We have not identified an areas of concern or made any modifications as a result of testing and operational use of the measure in relation to data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, and other feasibility issues unless otherwise noted.

**3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified** (e.g., value/code set, risk model, programming code, algorithm).

Limited proprietary coding is contained in the Measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. The AMA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT[R]) or other coding contained in the specifications.

CPT(R) contained in the Measure specifications is copyright 2004-2012 American Medical Association. LOINC(R) copyright 2004-2012 Regenstrief Institute, Inc. This material contains SNOMED Clinical Terms(R) (SNOMED CT[R]) copyright 2004-2012 International Health Terminology Standards Development Organisation. ICD-10 copyright 2012 World Health Organization. All Rights Reserved.

## 4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

### 4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are

publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

#### 4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Specific Plan for Use	Current Use (for current use provide URL)
	<p>Payment Program PQRS <a href="http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html">http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/index.html</a></p> <p>Professional Certification or Recognition Program American Board of Emergency Medicine Maintenance of Certification <a href="https://www.abem.org/PUBLIC/abem-maintenance-of-certification-(moc)/moc-assessment-of-practice-performance/acceptable-types-of-patient-care-practice-improvement-activities">https://www.abem.org/PUBLIC/abem-maintenance-of-certification-(moc)/moc-assessment-of-practice-performance/acceptable-types-of-patient-care-practice-improvement-activities</a></p>

#### 4a.1. For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

Physician Quality Reporting System (Centers for Medicare and Medicaid Services):

PQRS is a national reporting program that uses a combination of incentive payments and payment adjustments to promote reporting of quality information by eligible professionals (EPs). The program provides an incentive payment to practices with EPs (identified on claims by their individual National Provider Identifier [NPI] and Tax Identification Number [TIN]). EPs satisfactorily report data on quality measures for covered Physician Fee Schedule (PFS) services furnished to Medicare Part B Fee-for-Service (FFS) beneficiaries (including Railroad Retirement Board and Medicare Secondary Payer). Beginning in 2015, the program also applies a payment adjustment to EPs who do not satisfactorily report data on quality measures for covered professional services.

American Board of Emergency Medicine Maintenance of Certification:

As part of maintenance of certification, the American Board of Emergency Medicine requires diplomates to participate in Assessment of Practice Performance (APP). APP focuses on practice-based learning and improvement, particularly in the competencies of patient care, interpersonal and communication skills, and professionalism. APP is based on diplomates' involvement in a national, regional, or local practice improvement plan of their choice that meets ABEM's basic requirements. A specific goal of the APP program is to recognize quality improvement activities in which most diplomates are already participating. Reporting on performance measures, including this measure, is included as an acceptable type of patient care practice improvement activities.

#### 4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

The PCPI strongly encourages the use of its measures in quality improvement and accountability initiatives and promotes their use in public reporting programs. Measures developed by the PCPI, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. As a measure developer, we work with measure implementers as opportunities arise to encourage and facilitate the integration of PCPI measures in their programs.

#### 4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for

*implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)*

*It is our understanding that CMS is moving towards the public reporting of physician performance data via Physician Compare.*

#### **Improvement**

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

**4b. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)**

If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

While the PCPI creates measures with an ultimate goal of improving the quality of care, measurement is a mechanism to drive improvement but does not equate with improvement. Measurement can help identify opportunities for improvement with actual improvement requiring making changes to health care processes and structure. In order to promote improvement, quality measurement systems need to provide feedback to front-line clinical staff in as close to real time as possible and at the point of care whenever possible. (1)

1.Conway PH, Mostashari F, Clancy C. The future of quality measurement for improvement and accountability. JAMA. 2013 Jun 5;309(21):2215-6.

#### **4c. Unintended Consequences**

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

**4c.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.**

We are not aware of any unintended consequences at this time, but we take unintended consequences very seriously and therefore continuously monitor to mitigate them.

**4c.2. Please explain any unexpected benefits from implementation of this measure.**

**4d1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.**

How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.

**4d1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.**

**4d2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.**

Describe how feedback was obtained.

**4d2.2. Summarize the feedback obtained from those being measured.**

**4d2.3. Summarize the feedback obtained from other users**

**4d.3. Describe how the feedback described in 4d.2 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.**

**5. Comparison to Related or Competing Measures**

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

**5. Relation to Other NQF-endorsed Measures**

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.  
Yes

**5.1a. List of related or competing measures (selected from NQF-endorsed measures)**

0289 : Median Time to ECG

0665 : Patient(s) with an emergency medicine visit for non-traumatic chest pain that had an ECG.

**5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.**

**5a. Harmonization of Related Measures**

The measure specifications are harmonized with related measures;

**OR**

The differences in specifications are justified

**5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):**

**Are the measure specifications harmonized to the extent possible?**

No

**5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.**

Measure 0289 is related to this measure, but differs, as it addresses time to ECG, wherein this measure addresses performance of ECG.

**5b. Competing Measures**

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

**OR**

Multiple measures are justified.

**5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):**

**Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)**

Measure 0665 competes with this measure, #0090. We have developed and will maintain specifications for multiple data sources, including Electronic Health Records (EHRs) and Claims-Based Reporting. Our specifications for EHRs are developed in accordance with the terminology standards (eg, SNOMED, RxNorm, LOINC) named in the Meaningful Use Program (CMS EHR Incentive Program). The competing measure appears to utilize clinical enriched data including data from claims and pharmacy which is potentially limiting in that the measure could only be used by those groups/settings with access to that type of information (ie, pharmacy data).

<b>Appendix</b>
<p><b>A.1 Supplemental materials may be provided in an appendix.</b> All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.</p> <p><a href="#">Attachment Attachment: Appendix_A1_ECG_for_Non-Traumatic_Chest_Pain.pdf</a></p>
<b>Contact Information</b>
<p><b>Co.1 Measure Steward (Intellectual Property Owner):</b> <a href="#">AMA-convened Physician Consortium for Performance Improvement</a></p> <p><b>Co.2 Point of Contact:</b> <a href="#">Samantha, Tierney, Samantha.Tierney@ama-assn.org, 312-464-5524-</a></p> <p><b>Co.3 Measure Developer if different from Measure Steward:</b> <a href="#">American Medical Association - Physician Consortium for Performance Improvement (AMA-PCPI)</a></p> <p><b>Co.4 Point of Contact:</b> <a href="#">Jennifer, Heffernan, jennifer.heffernan@ama-assn.org, 773-464-4920-</a></p>
<b>Additional Information</b>
<p><b>Ad.1 Workgroup/Expert Panel involved in measure development</b></p> <p><b>Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.</b></p> <p><a href="#">Bruce S. Auerbach, MD, FACEP (Co-Chair)</a>  <a href="#">Eric C. Schneider, MD, MSc (Co-Chair)</a>  <a href="#">James G. Adams, MD, FACEP</a>  <a href="#">Dennis M. Beck, MD, FACEP</a>  <a href="#">Raj Behal, MD, MPH</a>  <a href="#">Stephen V. Cantrill, MD, FACEP</a>  <a href="#">Randall B. Case, MD, FACEP</a>  <a href="#">William Dalsey, MD, FACEP</a>  <a href="#">Andrew Eisenberg, MD, MHA</a>  <a href="#">Robert Emmick, Jr., MD, FACEP, MBA</a>  <a href="#">James Feldman, MD, MPH</a>  <a href="#">Paul Gitman, MD, MACP</a>  <a href="#">Richard Griffey, MD, MPH</a>  <a href="#">Scott R. Gunn, MD</a>  <a href="#">Stephen D. Hanks, MD, MMM, FACP</a>  <a href="#">Jeffery P. Kanne, MD</a>  <a href="#">Rahul Khare, MD</a>  <a href="#">Sravanthi Reddy, MD</a>  <a href="#">Carlotta M. Rinke, MD, FACP, MBA</a>  <a href="#">Sam J.W. Romeo, MD, MBA</a>  <a href="#">John F Schneider, MD, PhD</a>  <a href="#">John J. Skiendzielewski, MD, FACEP</a>  <a href="#">Carl Tommaso, MD, FASCAI</a></p> <p>PCPI measures are developed through cross-specialty, multi-disciplinary work groups. All medical specialties and other health care professional disciplines participating in patient care for the clinical condition or topic under study are invited to participate as equal contributors to the measure development process. In addition, the PCPI strives to include on its work groups individuals representing the perspectives of patients, consumers, private health plans, and employers. This broad-based approach to measure development ensures buy-in on the measures from all stakeholders and minimizes bias toward any individual specialty or stakeholder group. All work groups have at least two co-chairs who have relevant clinical and/or measure development expertise and who are responsible for ensuring that consensus is achieved and that all perspectives are voiced.</p>
<b>Measure Developer/Steward Updates and Ongoing Maintenance</b>

**Ad.2 Year the measure was first released:** 2006

**Ad.3 Month and Year of most recent revision:** 07, 2010

**Ad.4 What is your frequency for review/update of this measure?** Coding/Specifications updates occur annually. See additional information section for more details.

**Ad.5 When is the next scheduled review/update for this measure?** 12, 2014

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**Ad.7 Disclaimers:** Please see the copyright section, above.

**Ad.8 Additional Information/Comments:** The PCPI has a formal measurement review process that stipulates regular (usually on a three-year cycle, when feasible) review of the measures. The process can also be activated if there is a major change in scientific evidence, results from testing or other implementation issues are noted that materially affect the integrity of the measure.