



Measure Information - Composite

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 subcriterion 1b).

Brief Measure Information

NQF #: 2452

De.2. Measure Title: Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy

Co.1.1. Measure Steward: American College of Cardiology

De.3. Brief Description of Measure: Percentage of patients aged 18 years and older for whom PCI is performed who are prescribed optimal medical therapy at discharge

1d.3. Developer Rationale: This measure is intended to assess the extent to which eligible patients receive evidence-based medications that are indicated at hospital discharge following PCI.

Composite performance measures have a variety of uses.

Data reduction: A large and growing array of individual indicators makes it possible for users to become overloaded with data. A composite measure reduces the information burden by distilling the available indicators into a simple summary.

Scope expansion: The information in a composite measure is highly condensed, making it feasible to track a broader range of metrics than would be possible otherwise. Composite measures have been described as a tool for making provider assessments more comprehensive.

Provider performance valuation: Performance indicators are used for various decisions about providers, including the allocation of pay-for-performance incentives, designation of preferred provider status, and assignment of letter grades and star rating categories. If a decision is to be based on multiple indicators instead of a single indicator, a method of translating several variables into a single decision is needed. Composite measures serve this function by assigning providers to position on a scale of better-to-worse performance.

S.4. Numerator Statement: Patients who are prescribed* all of the medications, for which they are eligible, at discharge

*Prescribed may include prescription given to the patient for medications at discharge OR patient already taking medications as documented in current medication list

S.7. Denominator Statement: All patients aged 18 years and older for whom PCI is performed who are eligible for any of the following medications (ie, patient has no contraindication, allergy, intolerance):

- Aspirin
- P2Y12 inhibitor (only for PCIs with stenting)
- Statin

S.10. Denominator Exclusions: Patients who expired

Patients who left against medical advice

Patient discharged to hospice or for whom comfort care measures only is documented

Patient discharged to other acute care hospital

De.1. Measure Type: Composite

S.23. Data Source: Electronic Clinical Data : Registry

S.26. Level of Analysis: Clinician : Individual

IF Endorsement Maintenance – Original Endorsement Date: Sep 08, 2014 Most Recent Endorsement Date: Sep 08, 2014

1d.1. Composite Measure Construction: all-or-none measures (e.g., all essential care processes received, or outcomes experienced, by each patient)

Component Measures (if endorsed or submitted for endorsement):

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 subcriteria to pass this criterion and be evaluated against the remaining criteria.**

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

[2452_PCI_Composite_Evidence.pdf](#)

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., the benefits or improvements in quality envisioned by use of this measure)

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. (This is required for endorsement maintenance. 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 included). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

Based on current performance data from the CathPCI registry, the average performance rate on the composite measure was 88.29%. Performance rates for the individual components were as follows:

Name	Rate
ASA	97.91
P2Y12	96.37
STATIN	92.18
COMPOSITE	88.29

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.

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 endorsement maintenance. 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 subcriterion on improvement (4b.1) under Usability and Use.

Description	Female	
	Yes	No
N	11037	11509
Mean	0.8640	0.8831
Std Deviation	0.1567	0.1322
100% Max	1.0000	1.0000
99%	1.0000	1.0000
95%	1.0000	1.0000

90%	1.0000	1.0000
75% Q3	1.0000	0.9725
50% Median	0.9000	0.9143
25% Q1	0.8000	0.8387
10%	0.6850	0.7381
5%	0.5952	0.6667
1%	0.2000	0.3846
0% Min	0.0000	0.0000

Description	Age >= 65	
	Yes	No

N	11308	11318
Mean	0.8635	0.8912
Std Deviation	0.1462	0.1344

100% Max	1.0000	1.0000
99%	1.0000	1.0000
95%	1.0000	1.0000
90%	1.0000	1.0000
75% Q3	0.9677	0.9922
50% Median	0.8947	0.9249
25% Q1	0.8059	0.8485
10%	0.6923	0.7500
5%	0.6119	0.6667
1%	0.3333	0.3333
0% Min	0.0000	0.0000

Description	Race			
	Hispanic	White non-hispanic	Black non-Hispanic	Other

N	7161	11514	8112	6516
Mean	0.8888	0.8760	0.8777	0.8940
Std Deviation	0.2196	0.1333	0.2082	0.2311

100% Max	1.0000	1.0000	1.0000	1.0000
99%	1.0000	1.0000	1.0000	1.0000
95%	1.0000	1.0000	1.0000	1.0000
90%	1.0000	1.0000	1.0000	1.0000
75% Q3	1.0000	0.9655	1.0000	1.0000
50% Median	1.0000	0.9048	1.0000	1.0000
25% Q1	0.8571	0.8276	0.8333	0.9000
10%	0.6667	0.7297	0.6667	0.6667
5%	0.5000	0.6625	0.5000	0.4211
1%	0.0000	0.3333	0.0000	0.0000
0% Min	0.0000	0.0000	0.0000	0.0000

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.

1c. High Priority (previously referred to as High Impact)

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a

substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare

Frequently performed procedure, High resource use, Patient/societal consequences of poor quality

1c.2. If Other:

1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare.

List citations in 1c.4.

In 2010, an estimated 492,000 patients underwent PCI procedures in the United States.¹

In 2011, PCI resulted in:

- 3.2 day length of stay (mean)
- More than \$72,000 in hospital charges (mean)
- 1.2% mortality rate²

Estimates suggest each PCI costs over \$12,000 but vary based on the patient and clinical context. In the SYNTAX trial, follow-up costs over 1 year brought the total costs of PCI to \$35,991 in patients with multivessel CAD.³

1c.4. Citations for data demonstrating high priority provided in 1a.3

1. Go AS, Mozaffarian D, Roger VL, et al. on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics—2013 update: a report from the American Heart Association. *Circulation*. 2013;127:e6-e245.
2. Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project. HCUPnet. <http://www.hcup.ahrq.gov/HCUPnet.jsp>. Accessed December 9, 2013.
3. Cohen DJ, Lavelle TA, Serruys PW, et al, on behalf of the SYNTAX Investigators. Health related quality of life and U.S. economic outcomes of PCI with drug-eluting stents vs. bypass surgery: 1-year results from the SYNTAX trial. Presented at the American College of Cardiology meeting, March 29-31, 2009, Orlando, Florida.

1c.5. 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.)

1d. Composite Quality Construct and Rationale

1d.1. A composite performance measure is a combination of two or more component measures, each of which individually reflects quality of care, into a single performance measure with a single score.

For purposes of NQF measure submission, evaluation, and endorsement, the following will be considered composites:

- Measures with two or more individual performance measure scores combined into one score for an accountable entity.
- Measures with two or more individual component measures assessed separately for each patient and then aggregated into one score for an accountable entity:
 - all-or-none measures (e.g., all essential care processes received, or outcomes experienced, by each patient); or
 - any-or-none measures (e.g., any or none of a list of adverse outcomes experienced, or inappropriate or unnecessary care processes received, by each patient).

1d.1. Please identify the composite measure construction: [all-or-none measures \(e.g., all essential care processes received, or outcomes experienced, by each patient\)](#)

1d.2. Describe the quality construct, including:

- the overall area of quality
- included component measures and
- the relationship of the component measures to the overall composite and to each other.

[The composite measure focuses on optimal post-operative medical therapy for PCI patients in order to prevent stent thrombosis and](#)

reduce the risk of adverse outcomes such as MI or death. Each component of the composite includes a distinct medical therapy (ie, aspirin, statin, P2Y12) which together are recommended as the optimal regimen for patients following PCI with the placement of a stent. These agents have individually and together been shown to improve patient outcomes.

1d.3. Describe the rationale for constructing a composite measure, including how the composite provides a distinctive or additive value over the component measures individually.

This measure is intended to assess the extent to which eligible patients receive evidence-based medications that are indicated at hospital discharge following PCI.

Composite performance measures have a variety of uses.

Data reduction: A large and growing array of individual indicators makes it possible for users to become overloaded with data. A composite measure reduces the information burden by distilling the available indicators into a simple summary.

Scope expansion: The information in a composite measure is highly condensed, making it feasible to track a broader range of metrics than would be possible otherwise. Composite measures have been described as a tool for making provider assessments more comprehensive.

Provider performance valuation: Performance indicators are used for various decisions about providers, including the allocation of pay-for-performance incentives, designation of preferred provider status, and assignment of letter grades and star rating categories. If a decision is to be based on multiple indicators instead of a single indicator, a method of translating several variables into a single decision is needed. Composite measures serve this function by assigning providers to position on a scale of better-to-worse performance.

1d.4. Describe how the aggregation and weighting of the component measures are consistent with the stated quality construct and rationale.

The measure follows an all or none scoring approach in which the composite measure is “met” only if the patient is prescribed all of the medications, for which they are eligible. Together, the three pharmacologic agents have the greatest evidence of effectiveness and impact on outcomes in patients following a PCI procedure.

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 subcriteria 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, Cardiovascular : Percutaneous Coronary Intervention (PCI)

De.6. Cross Cutting Areas (check all the areas that apply):

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)

No data dictionary Attachment:

S.3. For endorsement maintenance, please briefly describe any changes to the measure specifications since last endorsement date 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)

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

Patients who are prescribed* all of the medications, for which they are eligible, at discharge

*Prescribed may include prescription given to the patient for medications at discharge OR patient already taking medications as documented in current medication list

S.5. Time Period for Data (What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)

For Perioperative Measures: Once for each surgical procedure performed during the measurement period

S.6. 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, 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.

Electronic Specifications for registry reporting are included in the Appendix, attached to Section A.1 in the 'Additional' tab.

S.7. Denominator Statement (Brief, narrative description of the target population being measured)

All patients aged 18 years and older for whom PCI is performed who are eligible for any of the following medications (ie, patient has no contraindication, allergy, intolerance):

- Aspirin
- P2Y12 inhibitor (only for PCIs with stenting)
- Statin

S.8. Target Population Category (Check all the populations for which the measure is specified and tested if any):

S.9. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, 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 denominator population is identified as patients who have a PCI performed (procedure codes included below) and who are eligible for at least one discharge medication. Eligibility for medications and electronic specifications for registry reporting are included in the Appendix, attached to Section A.1 in the 'Additional' tab.

CPT Codes:

92920 Percutaneous transluminal coronary angioplasty; single major coronary artery or branch

92924 Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; single major coronary artery or branch

92928 Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch

92933 Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch

92937 Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when performed; single

vessel

92941 Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed, single vessel

92943 Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; single vessel

SNOMED-CT Codes:

11101003	Percutaneous transluminal coronary angioplasty
15256002	Transmyocardial revascularization by laser technique
175066001	Percutaneous transluminal balloon angioplasty of bypass graft of coronary artery
232727003	Percutaneous directional coronary atherectomy
232728008	Percutaneous low speed rotational coronary atherectomy
232729000	Percutaneous high speed rotational coronary atherectomy
397193006	Percutaneous transluminal coronary angioplasty by rotoablation
397431004	Percutaneous transluminal coronary angioplasty with rotoablation, single vessel
414089002	Emergency percutaneous coronary intervention
415070008	Percutaneous coronary intervention
428488008	Placement of stent in anterior descending branch of left coronary artery
429499003	Placement of stent in circumflex branch of left coronary artery
429639007	Percutaneous transluminal balloon angioplasty with insertion of stent into coronary artery
431759005	Percutaneous transluminal atherectomy using fluoroscopic guidance
75761004	Infusion of intra-arterial thrombolytic agent with percutaneous transluminal coronary angioplasty
80762004	Infusion of intra-arterial thrombolytic agent with percutaneous transluminal coronary angioplasty, multiple vessels
85053006	Percutaneous transluminal coronary angioplasty, multiple vessels
91338001	Infusion of intra-arterial thrombolytic agent with percutaneous transluminal coronary angioplasty, single vessel

S.10. Denominator Exclusions (Brief narrative description of exclusions from the target population)

Patients who expired

Patients who left against medical advice

Patient discharged to hospice or for whom comfort care measures only is documented

Patient discharged to other acute care hospital

S.11. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, 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)

According to the ACCF/AHA/PCPI methodology, exclusions arise when the intervention required by the numerator is not appropriate for a group of patients who are otherwise included in the initial patient or eligible population of a measure (ie, the denominator). Exclusions are absolute and are to be removed from the denominator of a measure and therefore clinical judgment does not enter the decision. For this measure, exclusions include patients who died, etc. etc. Exclusions, including applicable value sets, are included in the measure specifications.

Additional details by data source are as follows:

The electronic specifications for registry reporting necessary to capture the excluded population are included in the Appendix, attached to Section A.1 in the 'Additional' tab.

S.12. Stratification Details/Variables (All information required to stratify the measure results including the stratification variables, definitions, 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 with at S.2b)

We encourage the results of this measure be stratified by race, ethnicity, administrative sex, and payer.

S.13. Risk Adjustment Type (Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)

No risk adjustment or risk stratification

If other:

S.14. Identify the statistical risk model method and variables (*Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability*)

Not applicable.

S.15. Detailed risk model specifications (*must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.*)

Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

S.15a. Detailed risk model specifications (*if not provided in excel or csv file at S.2b*)

Not Applicable

S.16. Type of score:

Rate/proportion

If other:

S.17. 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.18. Calculation Algorithm/Measure Logic (*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; 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) Find the patients who qualify for exclusions and subtract from the denominator.
- 4) 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

If the patient does not meet the numerator, this case represents a quality failure.

S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment (*You also may provide a diagram of the Calculation Algorithm/Measure Logic described above 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. 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.21. Survey/Patient-reported data (*If measure is based on a survey, provide instructions for conducting the survey 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.22. Missing data (*specify how missing data are handled, e.g., imputation, delete case.*)

Required for Composites and PRO-PMs.

If data required to determine if an individual patient should be included in a specific performance measure based on defined criteria is missing, those cases would be ineligible for inclusion in the denominator and therefore the case would be deleted.

If data required to determine if a denominator eligible patient qualifies for the numerator (or has a valid exclusion/exception) is missing, this case would represent a quality failure.

S.23. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.24.

[Electronic Clinical Data : Registry](#)

S.24. Data Source or Collection Instrument (Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)

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

[NCDR® CathPCI Registry® v4.4 Diagnostic Catheterization Data Collection Form](#)

S.25. 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.26. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

[Clinician : Individual](#)

S.27. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

[Hospital/Acute Care Facility](#)

If other:

S.28. 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.)

[All documents required for the composite measure are found in Appendix A1.](#)

2a. Reliability – See attached Measure Testing Submission Form

2b. Validity – See attached Measure Testing Submission Form

[2452_PCI_Optimal_Medical_Therapy_Composite_Testing_Form_122313__FINAL.pdf](#)

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.

[Abstracted from a record by someone other than person obtaining original information \(e.g., chart abstraction for quality measure or registry\)](#)

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)

ALL data elements are in defined fields in a combination of electronic sources

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.

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.

No feasibility assessment Attachment:

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. Describe what you have learned/modified 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 PROM data (patients, service recipients, respondents) and those whose performance is being measured.

We have not identified any 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 measures specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of the code sets. The AMA, the ACC, the AHA, the NCQA, the PCPI and its members disclaim all liability for use or accuracy of any Current Procedural Terminology (CPT®) or other coding contained in the specifications.

CPT® contained in the measures specifications is copyright 2004-2012 American Medical Association. LOINC® copyright 2004-2012 Regenstrief Institute, Inc. This material contains SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2012 International Health Terminology Standards Development Organisation. 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.

Planned	Current Use (for current use provide URL)
	Quality Improvement with Benchmarking (external benchmarking to multiple organizations) NCDR CathPCI Registry https://www.ncdr.com/webncdr/cathpci/

4a.1. For each CURRENT use, checked above, provide:

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

The CathPCI Registry is sponsored by ACCF in conjunction with the Society for Cardiovascular Angiography and Interventions. The CathPCI Registry was designed to create a national surveillance system to assess the characteristics, treatments, and outcomes of patients with coronary heart disease who undergo procedures in cardiac catheterization laboratories. Eligible patients are adults (18 years of age and older) who undergo a diagnostic cardiac catheterization and/or PCI. More than 1,300 hospitals across the U.S. submit data to the CathPCI registry. Participation in the CathPCI Registry provides risk-adjusted, quarterly benchmark reports that compares an institution's performance with that of volume-based peer groups and the national experience. The registry includes standardized, evidence-based data elements and definitions, a Dashboard tool that provides a custom query to control for variables (facility size, number of procedures, teaching vs. non-teaching sites, states and regions) to compare the participating facility data, metrics and volumes. ABIM Diplomates can also meet MOC recertification requirements by using CathPCI Registry data to earn up to 80 points toward evaluation of practice performance through the self-directed PIM.

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?)

We are continuously seeking opportunities to advocate for expanded use of this measure in government or other programs, including those intended for accountability or public reporting. The ACC, AHA and PCPI do not have any policies that would restrict access to the performance measure specifications or results or that would impede implementation of the measure for any application. We would welcome its implementation in emerging applications such as accountable care organizations (ACO), Medicare Advantage insurance plans or health plans selling on the new insurance marketplace.

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.)

The ACCF/AHA/PCPI strongly encourages the use of its measures in quality improvement and accountability initiatives and promotes their use in public reporting programs. The ACCF/AHA/PCPI plans to submit its measures for use in the CMS Physician Quality Reporting System (PQRS). NQF endorsement facilitates the submission and use of PCPI measures in PQRS.

The ACCF/AHA/PCPI works with relevant specialty societies to identify additional opportunities for implementation of measures in programs that can provide meaningful quality information and performance results to ensure continued improvements in the quality of patient care.

4b. 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.1. Progress on Improvement. (Not required for initial endorsement unless available.)

Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:

- Progress (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

4b.2. 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 ACCF, AHA and PCPI create 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. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

We are not aware of any unintended consequences at this time, but we continuously monitor for them.

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)

0067 : Chronic Stable Coronary Artery Disease: Antiplatelet Therapy

0068 : Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antiplatelet

0074 : Chronic Stable Coronary Artery Disease: Lipid Control

0118 : Anti-Lipid Treatment Discharge

0142 : Aspirin prescribed at discharge for AMI

0543 : Adherence to Statin Therapy for Individuals with Cardiovascular Disease

0569 : ADHERENCE TO STATINS

0631 : Secondary Prevention of Cardiovascular Events - Use of Aspirin or Antiplatelet Therapy

0639 : Statin Prescribed at Discharge

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

ACCF: Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients

5a. Harmonization

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 completely harmonized?

No

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

Statin measures 0543: Adherence to Statin Therapy for Individuals with Coronary Artery Disease is not specific to patients undergoing a PCI. This measure uses claims data and it is not evaluated at the point of discharge. This is a measure using claims data and determines whether patients are filling their prescription. The measure we propose evaluates if the prescription has been

provided to the patients. 0569: Adherence to Statin is similar to measure 0543 listed above and is not specific to patients undergoing PCI. This is a measure using claims data and determines whether patients are filing their prescription. The measure we propose evaluates if the prescription has been provided to the patients. 0118: Anti-Lipid Treatment Discharge includes patients undergoing CABG, not PCI. It also includes non statins as well as statins. 0074: Chronic Stable Coronary Artery Disease: Lipid Control includes all patients with CAD and is not specific to those patients who have had a PCI. 0639: Statin Prescribed at Discharge evaluates patients who have had a myocardial infarction. There may be patient overlap with this measure and the one proposed. The composite measure proposed in this application however contains two other guideline recommended medication. Our measure includes all PCI patients not only those who have had a MI, thus ours is monitoring secondary prevention as well as the tertiary prevention that is measured by CMS. P2Y12/Aspirin component 0142: Aspirin prescribed at discharge for AMI evaluates patients who have had a myocardial infarction. There may be patient overlap with this measure and the one proposed. The composite measure proposed in this application however contains two other guideline recommended medication. Our measure includes all PCI patients not only those who have had a MI, thus ours is monitoring secondary prevention as well as the tertiary prevention that is measured by CMS. 0067: Chronic Stable Coronary Artery Disease: Antiplatelet Therapy includes all patients with CAD and is not specific to those patients who have had a PCI. 0068: Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic includes a larger patient population of patients who were discharged for acute myocardial infarction, coronary artery bypass graft or percutaneous coronary interventions. The measure 0068 measures patients who had documentation of use of aspirin or another antithrombotic during the measurement year. The critical difference is the use of the term "or" that allows patients to be included into the numerator of this measure. Evidence indicates that Dual Antiplatelet Therapy is the ideal medical therapy of choice for this patient population. The composite measure proposed in this application follows the current medical guidelines for treating patients undergoing PCI with both Aspirin and a specifically anti platelets medications within the P2Y12 inhibitor drug class. 0631 Secondary Prevention of Cardiovascular Events - Use of Aspirin or Antiplatelet Therapy The critical difference is the use of the term "or" that allows patients to be included into the numerator of this measure. Evidence indicates that Dual Antiplatelet Therapy is the ideal medical therapy of choice for this patient population. The composite measure proposed in this application follows the current medical guidelines for treating patients undergoing PCI with both Aspirin and a specifically anti platelets medications within the P2Y12 inhibitor drug class. ACCF/AHA: Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients The specifications for the measure are harmonized. Though this measure targets the same topic area, encouraging the use of aspirin, P2Y12 inhibitor, and statin at discharge following PCI, the ACCF/AHA measure is measured on the facility level, whereas the measure we are submitting for endorsement here is a physician level measure.

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.)

Appendix

A.1 Supplemental materials may be provided in an appendix. 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.

Attachment Attachment: 2452_Appendix_A1_PCI_7.pdf

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): American College of Cardiology

Co.2 Point of Contact: Penelope, Solis, comment@acc.org, 202-375-6576-

Co.3 Measure Developer if different from Measure Steward: American College of Cardiology

Co.4 Point of Contact: Jensen, Chiu, jensen.chiu@acc.org, 202-375-6285-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

Brahmajee K. Nallamothu, MD, MPH, FACC, FAHA (Co-Chair)
 Carl Tommaso, MD, FACC, FSCAI (Co-Chair)
 H. Vernon Anderson, MD, FACC, FAHA, FSCAI
 Jeffrey L. Anderson, MD, FACC, FAHA, MACP
 Jeff Brady, MD, MPH
 R. Adams Dudley, MD, MBA
 Peter Louis Duffy, MD, MMM, FACC, FSCAI
 Joseph C. Cleveland, Jr., MD
 David P. Faxon, MD, FACC, FAHA
 Hitinder S. Gurm, MD, FACC
 Lawrence A. Hamilton (health plan representative)
 Neil C. Jensen, MHA, MBA (health plan representative)
 Richard A. Josephson MD, MS, FACC, FAHA
 David J. Malenka, MD, FACC, FAHA
 Calin V. Maniu, MD, FACC, FAHA, FSCAI
 Kevin W. McCabe, MD (consumer/purchaser representative)
 James D. Mortimer (consumer/purchaser representative)
 Manesh R. Patel, MD, FACC, FAHA
 Stephen D. Persell, MD, MPH
 John S. Rumsfeld, MD, PhD, FACC, FAHA
 Kendrick A. Shunk, MD, PhD, FACC, FAHA, FSCAI
 Sidney C. Smith, Jr., MD, FACC, FAHA
 Stephen J. Stanko, MBA, BA, AA (patient representative)
 Brook Watts, MD, MS

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 must be 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.

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2013

Ad.3 Month and Year of most recent revision:

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?

Ad.6 Copyright statement: Physician performance measures and related data specifications were developed by the American Medical Association (AMA) convened Physician Consortium for Performance Improvement® (PCPI®), the American College of Cardiology (ACC), the American Heart Association (AHA) and the National Committee for Quality Assurance (NCQA) to facilitate quality improvement activities by physicians. These performance measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. While copyrighted, they can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the performance measures for commercial gain, or incorporation of the performance measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the measures require a license agreement between the user and the AMA (on behalf of the PCPI), or the ACC, or the AHA or the NCQA. Neither the AMA, ACC, AHA, NCQA, the PCPI nor its members shall be responsible for any use of these measures.

THE MEASURES AND SPECIFICATIONS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

© 2013 American College of Cardiology, American Heart Association, American Medical Association and National Committee for Quality Assurance. All Rights Reserved.

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

CPT® contained in the measures specifications is copyright 2004-2012 American Medical Association. LOINC® copyright 2004-2012 Regenstrief Institute, Inc. This material contains SNOMED CLINICAL TERMS (SNOMED CT®) copyright 2004-2012 International Health Terminology Standards Development Organisation. All Rights Reserved.

Ad.7 Disclaimers: See copyright statement, above.

Ad.8 Additional Information/Comments: The ACCF/AHA/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.