NATIONAL QUALITY FORUM

Memo

TO: Consensus Standards Approval Committee (CSAC)

FR: NQF Staff

RE: Cardiovascular Member Voting Results

DA: August 12, 2014

The CSAC will review recommendations from the Cardiovascular project at its August 12th meeting on a conference call.

This memo includes a summary of the project, recommended measures, and themes identified from and responses to the public and member comments.

Member voting on these recommended measures ended on August 5, 2014.

Accompanying this memo are the following documents:

1. **Cardiovascular Draft Report.** The draft report has been updated to reflect the changes made following Standing Committee discussion of public and member comments. The complete draft report and supplemental materials are available on the project page.
2. **Comment table.** Staff has identified themes within the comments received. This table lists 53 comments received and the NQF/Standing Committee responses.

CSAC ACTION REQUIRED
Pursuant to the CDP, the CSAC may consider approval of 14 candidate consensus standards.

Cardiovascular Measures Recommended for Endorsement:

- 0133: In-Hospital Risk Adjusted Rate of Mortality for Patients Undergoing PCI
- 0535: 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock
- 0536: 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock
- 0642: Cardiac Rehabilitation Patient Referral From an Inpatient Setting
- 0643: Cardiac Rehabilitation Patient Referral From an Outpatient Setting
- 0964: Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients
- 2377: Defect Free Care for AMI
- 2379: Adherence to Antiplatelet Treatment after Stent Placement
- 2411: Comprehensive Documentation of Indications for Percutaneous Coronary Intervention (PCI)
- 2450: Heart Failure: Symptom and Activity Assessment
- 2455: Heart Failure: Post-Discharge Appointment for Heart Failure Patients
- 2459: In-hospital Risk Adjusted Rate of Bleeding Events for Patients Undergoing PCI

- 2473: Hospital 30-Day Risk-Standardized Acute Myocardial Infarction (AMI) Mortality eMeasure
- 2452: Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy

Cardiovascular Measures Not Recommended:

- 0286: Aspirin at Arrival
- 0289: Median Time to ECG
- 0521: Heart Failure Symptoms Assessed and Addressed

BACKGROUND

Cardiovascular disease is the leading cause of death for men and women in the United States. It accounts for approximately $312.6 billion in health care expenditures annually. Coronary heart disease (CHD) accounts for 1 of every 6 deaths in the United States.[1] Hypertension—a major risk factor for heart disease, stroke, and kidney disease—affects 1 in 3 Americans, with an estimated annual cost of $156 billion in medical costs, lost productivity, and premature deaths.[2]

NQF's portfolio of 63 cardiovascular measures is one of the largest and most long-standing with measures in the topic areas of primary prevention and screening, coronary artery disease (CAD) or ischemic heart disease (IHD), heart attacks (AMI), percutaneous coronary intervention (PCI), cardiac rehabilitation, cardiac imaging, high blood pressure, heart failure, rhythm disorders and ICDs.

Most recently, the newly-convened Cardiovascular Standing Committee which includes 24 members met during a two-day in-person meeting to evaluate 17 measures: 9 new measures and 8 measures undergoing maintenance of endorsement review against NQF's standard evaluation criteria. Fourteen of the measures were recommended for endorsement by the Committee, and three were not recommended.

DRAFT REPORT

The Cardiovascular Draft Report presents the results of the evaluation of 17 measures considered under the CDP. Fourteen of these measures have been recommended for endorsement as voluntary consensus standards suitable for accountability and quality improvement and three were not recommended. The measures were evaluated against the 2013 version of the measure evaluation criteria.

	MAINTENANCE	NEW	TOTAL
Measures considered	9	8	17
Withdrawn from consideration	5	1	6
Recommended	6	8	14
Not recommended	3	0	3
Reasons not Recommended	Importance- 3		

COMMENTS AND THEIR DISPOSITION

NQF received 53 comments from 12 organizations and individuals pertaining to the general draft report and to the measures under consideration.

A table of comments submitted during the comment period, with the responses to each comment and the actions taken by the Standing Committee and measure developers, is posted to the Cardiovascular project page under the Public and Member Comment section.

[1] Lloyd-Jones D, Adams RJ, Brown TM, et al., Heart disease and stroke statistics—2013 update: a report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee , Circulation, 2013;127:e6-e10.

[2] "HHS Secretary Sebelius Statement on National High Blood Pressure Education Month." U.S. Department of Health & Human Services (HHS), 2 May 2012. Available at http://www.hhs.gov/news/press/2012pres/05/20120502a.html. Last accessed October 2013.

Comment Themes and Committee Responses
Five major themes were identified in the post-evaluation comments, as follows:

1. Measures for which consensus was not reached by the Committee (measures #2452 and #0643)
2. Costs and burdens to participate in multiple registries multiple
3. Recommendations for improved measures or alternative approaches
4. Harmonization of medications in related measures
5. Age specifications

At its review of all comments, the Standing Committee had the benefit of developer responses. Committee members focused their discussion on measures or topic areas with the most significant and recurring issues.

Theme 1: Measures for which consensus was not reached by the Committee

2452 Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy (ACC/AHA/PCPI)

This new composite measure is the clinician-level version of measure 0964. The only difference in specifications is that this clinician-level measure has additional exceptions for medical reasons, patient reasons and system reasons. Committee members also noted that attribution may be an issue as it is not clear how often the discharge medications are prescribed by the operator doing the PCI, rather than another cardiologist or primary provider. The developers also noted recent attention toward capture of the NPI provider number that had previously been problematic. Committee members were divided on whether to include the clinician-level of analysis in measure 0964 rather than having a separate measure. The need for complete harmonization was emphasized.
NQF staff and the developers for measures #0964 and #2452 met on June20, 2014 to discuss harmonization and the possibility of combining the two measures into one. A response letter from the developers was submitted [link can be found here] re-iterating their position that the measures are fully harmonized but insist they must remain as separate measures due to issues of measure stewardship. The developers provided an additional document [link can be found here]with a side by side comparison between measures #964 and #2452 that is referenced within the response letter.

Two comments were submitted for the measure:

- A comment from AHIP stated "We recommend revising this process measure to capture if a patient who has undergone a PCI is adherent to these medications, rather than assessing if the medication was prescribed. Data collection for such an outcome measure would be feasible as pharmacy claims could be used to assess P2Y12 agent and statin adherence."
- A comment from AstraZeneca regarding the need for harmonization of drug inclusions in measures 2452, 0964 and 2379. The developers have been asked to respond to the comments.

ACTION TAKEN: The Committee agreed that adherence measures are important. New measure *#2379 Adherence to Anti-platelet Therapy after Stent Implementation* measures adherence for P2Y12 agents. NQF endorsed *measure # 0543 Adherence to Statin Therapy for Individuals with Coronary Artery Disease* addresses adherence to statins in this population. The biggest difficulty is adherence to aspirin which would not be captured. The Committee reviewed the side-by-side specifications for the P2Y12 agents and found them to be the same for all three measures. As the Committee reviews other measures of antiplatelet agents in the cardiovascular portfolio, harmonization of the specified agents will be addressed.

The Committee acknowledged the letter from the measure stewards about combining measures 0964 and 2452. The Committee subsequently voted to recommend the measure.

0643 Cardiac Rehabilitation Patient Referral From an Outpatient Setting (American College of Cardiology)

During the initial review the Committee was very supportive of the importance of cardiac rehabilitation, but concern was raised that the specifications of the measure require patients with chronic stable angina to be referred to cardiac rehabilitation annually, which is not supported by the evidence. Additionally, some Committee members voiced concern that providers could be penalized by both this measure and by the companion measure, if a patient is referred to cardiac rehabilitation prior to discharge from an inpatient admission but has not enrolled prior to the outpatient visit with the same provider. The developer proposed revised description to address the Committee concern related to chronic stable angina patients:

"Percentage of patients evaluated in an outpatient setting who in the previous 12 months have experienced an acute myocardial infarction, New or worsening angina that does not meet criteria for unstable angina (1), or who have undergone coronary artery bypass (CABG) surgery, a percutaneous coronary intervention (PCI), cardiac valve surgery (CVS), or cardiac transplantation, who have not already participated in an early outpatient cardiac rehabilitation/secondary prevention program for the qualifying event, and who are referred to an outpatient cardiac rehabilitation/secondary prevention program."

NQF received 13 comments addressing measure 0643:

- Nine comments support the continued endorsement of the measure. Several comments addressed the specific concerns raised by the Committee.
- One comment identified concerns with the "complication of the measure" and that it seems too burdensome for discerning numerator and denominator and lacks strong evidence.
- One recommendation that the measure should capture whether the patient actually received rehabilitation services rather than just the referral – the data can be captured in administrative claims.
- One commenter states that the denominator is incorrect and should state ""Number of patients in an outpatient clinical practice who have had a qualifying cardiovascular event in the previous 12 months and who do not meet any of the criteria listed in the denominator exclusion section below."
- One comment points out that the age inclusions were only noted in the algorithm.

Developer's Response regarding the specifications: The denominator description statement is correct as it is currently written. Patients who have had a qualifying inpatient cardiovascular event and who have already been referred to an outpatient CR program, would not be included in the outpatient measure since they would have already been referred from an inpatient setting. The focus of the referral measure from an outpatient setting is to include those patients who have had a qualifying event, but who have not yet been referred to an outpatient CR program.

ACTION TAKEN: The Committee reviewed the comments and reiterated concerns about outpatient providers being penalized if an inpatient is referred and attends a cardiac rehabilitation program but this is not documented in the outpatient record.

Committee members generally agreed that participation is what is important and involves shared accountability with the patient. The Committee supports moving to outcome measures (participation) and would welcome submission of a participation measure for potential endorsement.

After review of the comments the Committee narrowly voted to recommend the measure for continued endorsement.

Theme 2: Recommendations for improved measures or alternative approaches

AHIP submitted several comments requesting revisions to measures to capture more meaningful information:

- **0642 and 0643: Inpatient/Outpatient referral to cardiac rehabilitation**
  - Assess whether patient received cardiac rehabilitation services rather than just assess whether a referral was made
- **2411 Percutaneous Coronary Intervention (PCI): Comprehensive Documentation of Indications for PCI**
  - Measure appropriateness of PCI, not just documentation.
- **2455: Heart Failure: Post-Discharge Appointment for Heart Failure Patients**
  - Capture whether the patient had a follow-up visit, not just the appointment

ACTION TAKEN: The Committee supports moving to outcome measures and would welcome submission of the suggested measures for potential endorsement.

Theme 3: Costs and burden to participate in multiple registries

A commenter noted that the data elements of the NCDR CathPCI registry and the NCDR ACTION registry greatly overlap and that it is costly and burdensome to participate in multiple registries.

Developer's Response: Thank you for your comment. The ACTION Registry-GWTG is designed to capture all patients that present with an MI. The CathPCI Registry does not capture MI patients that may not undergo a diagnostic catheterization or PCI. If the Defect Free Care Composite Measure was applied to the CathPCI Registry, those MI patients that did not undergo at minimum a diagnostic catheterizations or PCI would not be captured. The other issue is that diagnostic catheterizations are optional in the CathPCI Registry. If the site only submits their PCI cases, many MIs will be lost in the measure.

ACTION TAKEN: The Committee agreed that the burden of participating in multiple registries is a significant concern and encouraged developers (particularly ACC that has several registries) to consider the burden since there is a great deal of overlap among registries. Some Committee members noted the evolution in data capture and measurement and a need to develop eMeasures and leverage the use of EHRs.

Theme 4: Harmonization of medications in related measures

AstraZeneca requested harmonization of similar measures, specifically the drugs specifications for oral anti-platelet medications in measures 0964, 2452 and 2479 as well as other measures in the portfolio addressing anti-platelet agents. Side by side of specifications for the three measures:

0964 Therapy with aspirin, P2Y12 inhibitor,	2379: Adherence to Antiplatelet Therapy

and statin at discharge following PCI in eligible patients and 2452: Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy	after Stent Implantation
P2Y12 agent (clopidogrel, prasurgel, or ~~ticlopidine~~ ticagrelor)**	Clopidogrel, prasurgel, ticagrelor

** During the work group calls the committee and developer agreed that there was a typographical error in the specifications and that ticlopidine should not be included and that ticagrelor should be listed.

ACTION TAKEN: The Committee indicated that the evidence and guidelines for dual antiplatelet agents in patients with coronary artery disease and AMI are the same as for post-PCI. The evidence for post-CABG patients is less clear. As the Committee reviews other measures of antiplatelet agents in the cardiovascular portfolio, harmonization of the specified agents will be addressed.

Theme 5: Age specifications

Several comments from the Children's Hospital Association note lack of specificity with age inclusions for several measures stating "we would like to encourage NQF and the measure developers to standardize the way in which measures are presented with regard to the target population."

ACTION TAKEN: The Committee urged developers to clearly specify age inclusions and include age in the measure description. Additionally, the Committee supports measures to apply to children and adolescents whenever appropriate.

NQF MEMBER VOTING RESULTS

All of the recommended measures were approved with 76% approval or higher. Representatives of 25 member organizations voted; no votes were received from the Consumer and Public/Community Health Agency Councils. Results for each measure are provided below. (Links are provided to the full measure summary evaluation tables.)

NQF Member Council	Voting Organizations	Eligible to Vote	Rate
Consumer	0	28	0%
Health Plan	3	15	20%
Health Professional	11	87	13%
Provider Organizations	5	134	4%
Public/Community Health Agency	0	33	0%
Purchaser	2	24	8%
QMRI	3	69	4%
Supplier/Industry	1	29	3%
All Councils	**25**	**419**	**7%**

Measure 0133: In-Hospital Risk Adjusted Rate of Mortality for Patients Undergoing PCI

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	3	0	0	3	100%
Health Professional	8	0	3	11	100%
Provider Organizations	3	0	2	5	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	1	0	2	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**17**	**0**	**8**	**25**	**100%**
Percentage of councils approving (>60%)			100%		
Average council percentage approval			100%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- There were no comments for this measure during member voting.

Measure 0535: 30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	3	0	0	3	100%
Health Professional	7	1	3	11	88%
Provider Organizations	2	1	2	5	67%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	1	0	2	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**15**	**2**	**8**	**25**	**88%**
Percentage of councils approving (>60%)			100%		
Average council percentage approval			91%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- Adventist Health System: The stated reliability of this measure is only fair. Further is was established on patients 65 and older but is to be applied to other PCI patients. I do no see that

the reliability of the measure will increase as a result. The establishing of the measure should be done on a stratified random sample of patients of all age groups to which it is to be applied.

Measure 0536: 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	3	0	0	3	100%
Health Professional	7	1	3	11	88%
Provider Organizations	2	1	2	5	67%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	1	0	2	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**15**	**2**	**8**	**25**	**88%**
Percentage of councils approving (>60%)			100%		
Average council percentage approval			91%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- Adventist Health System: As in my objection to 0535, the measure should be determined for validity and reliability on the population to which it to be applied. Using a statistical model to extrapolate the measure to a population group will only increase the unreliability of the measure which is starting out as only rate fair.

Measure 0642: Cardiac Rehabilitation Patient Referral From an Inpatient Setting

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	0	3	0	3	0%
Health Professional	11	0	0	11	100%
Provider Organizations	4	0	1	5	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	2	0	1	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**19**	**3**	**3**	**25**	**86%**
Percentage of councils approving (>60%)			80%		
Average council percentage approval			80%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: We recommend revising this measure to capture whether a patient with a cardiac disease event/diagnosis actually received rehabilitation rather than assessing the number of patients who are referred to an early outpatient cardiac rehabilitation/secondary prevention program. Data collection for such a measure would be more feasible as data could be captured using administrative claims, as opposed to burdensome chart review needed to assess referrals. We also recommend that this measure capture the different levels of cardiac rehabilitation that patients complete based on what is clinically appropriate for that patient.
- AmeriHealth Caritas: This is a low-bar measure. I recognize the intent was to stimulate more referrals; but a better metric would be percent of patients completing a recommended course of cardiac rehab. (or at least involved in cardiac rehab 30 post-discharge).
- WellPoint: Recommend revising to capture whether patient with cardiac disease actually received rehabilitation.
- Academy of Nutrition and Dietetics: The Academy of Nutrition and Dietetics (Academy) is voting in support of continuing Referral to Cardiac Rehabilitation performance measures #0642 and #0643 and remain endorsed by the NQF as these measures track the referrals to Cardiac Rehabilitation. These performance measures encourage providers and facilities, like hospitals, to keep track of how frequently they are using cardiac rehab for their patients (0642 and 0643 track the referral to CR from inpatient and outpatient sources). Only about 10 % of eligible patients get cardiac rehab and a big piece of improving that number is to get providers thinking of it as a regular part of their treatment for patients. The goal is to make the referral process easy and habitual. Studies clearly show that participation in cardiac rehab has a positive impact on patientslives (e.g., lower secondary events, lower morbidity, better QOL). Our US Healthcare through its summary of quality indicators reporting needs to see the benefit of cardiac rehabilitation as a way to improve lives, lower healthcare costs, and advance our collective awareness of the benefits of taking better care of ourselves - whether its with our heart health or overall goal to optimal health which includes nutrition health. The Academy and its Registered Dietitian Nutritionists collaborate with the American Association for Cardiovascular and Pulmonary Rehabilitation (AACVPR) on several cardiac issues for their patients/clients. Our Registered Dietitian Nutritionists who work in Cardiovascular and Wellness Nutrition receive referrals and make referrals as well as assist with tracking referrals via the performance measures #0642 and #0643. It is our intent to continue accelerating our Registered Dietitian Nutritionists to continue their involvement as they are greatly needed in cardiac rehabilitation. The Academy of Nutrition and Dietetics understands the importance of these measures that were previously included on the NQF recommended list and the Academy now votes to continue their inclusion. Thank you.

Measure 0964: Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	0	3	0	3	0%
Health Professional	9	0	2	11	100%
Provider Organizations	2	1	2	5	67%
Public/Community Health Agency	0	0	0	0	

Purchaser	2	0	0	2	100%
QMRI	2	0	1	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**15**	**4**	**6**	**25**	**79%**
Percentage of councils approving (>60%)			80%		
Average council percentage approval			73%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: We recommend revising this process measure to capture if a patient who has undergone a PCI is adherent to these medications, rather than assessing if the medication was prescribed. Data collection for such an outcome measure would be feasible as pharmacy claims could be used to assess P2Y12 agent and statin adherence.
- AmeriHealth Caritas: This is still a process measure rather than an intermediate outcome measure. It would be strengthened by documentation that the patient is taking these drugs from clinical records and/or pharmacy data.
- WellPoint: Recommend revising to capture if a patient who has undergone a PCI is adherent to these medications vs if medication was prescribed.
- Adventist Health System: As noted this is a duplicative measure 2452. Eliminate 2452 or this one.

Measure #2377: Defect Free Care for AMI

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	3	0	0	3	100%
Health Professional	8	0	3	11	100%
Provider Organizations	1	1	3	5	50%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	1	0	2	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**15**	**1**	**9**	**25**	**94%**
Percentage of councils approving (>60%)			80%		
Average council percentage approval			90%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- Adventist Health System: Face Validity alone is not sufficient to approve a measure.

Measure #2379: Adherence to Antiplatelet Therapy after Stent Implantation

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	3	0	0	3	100%

Health Professional	5	1	5	11	83%
Provider Organizations	2	0	3	5	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	0	0	3	3	
Supplier/Industry	0	0	1	1	
All Councils	**12**	**1**	**12**	**25**	**92%**
Percentage of councils approving (>60%)			100%		
Average council percentage approval			96%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- AmeriHealth Caritas: This is a positive intermediate outcome measure that requires patient understanding of physician/hospital recommendations.

Measure #2411: Percutaneous Coronary Intervention (PCI): Comprehensive Documentation of Indications for PCI

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	0	3	0	3	0%
Health Professional	9	0	2	11	100%
Provider Organizations	3	0	2	5	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	2	0	1	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**16**	**3**	**6**	**25**	**84%**
Percentage of councils approving (>60%)			80%		
Average council percentage approval			80%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: We do not support this measure, as we believe it should not be used for assessing quality performance but rather should be done as a standard practice of medicine. Rather than assessing if comprehensive documentation was performed, we recommend revising the measure to capture whether the percutaneous coronary intervention was appropriate.
- AmeriHealth Caritas: Documentation is now an expectation, in a manner similar to recording a blood pressure. In the EHRs that I use, this would not be difficult to do.
- WellPoint: Recommend revising to capture whether percutaneous coronary intervention was appropriate.

Measure #2450: Heart Failure: Symptom and Activity Assessment

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	1	2	0	3	33%
Health Professional	9	0	2	11	100%
Provider Organizations	2	0	3	5	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	2	0	1	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**16**	**2**	**7**	**25**	**89%**
Percentage of councils approving (>60%)			80%		
Average council percentage approval			87%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- AmeriHealth Caritas: The discussion by the developer at the Cardiovascular Work Group meeting was very compelling--this requires physician documentation of patient subjective responses. While not a true PROM, this measure is from a different point of view than the ones based upon technology. This would be a good PCP measure as well as for a cardiologist.
- WellPoint: This measure does not capture action taken, only if activity assessment occurred...recommend adding exclusions based on office visit purpose.

Measure #2455: Heart Failure: Post-Discharge Appointment for Heart Failure Patients

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	0	3	0	3	0%
Health Professional	9	0	2	11	100%
Provider Organizations	2	1	2	5	67%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	2	0	1	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**15**	**4**	**6**	**25**	**79%**
Percentage of councils approving (>60%)			80%		
Average council percentage approval			73%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: We recommend revising this measure to capture whether a patient with heart failure actually received post-discharge follow-up care rather than assessing if such an appointment was scheduled and documented.

- AmeriHealth Caritas: Again, a process measure rather than the intermediate outcome measure of whether the patient was actually seen and assessed by the physician post discharge.
- WellPoint: Recommend revising to capture if HF patient actually received post discharge follow up care vs if appointment was scheduled and documented.
- Adventist Health System: The measure while getting at a process does not get at quality. As noted the simple making of an appointment prior to discharge is not indicative of quality. The underlying issues are the timeliness of the appointment and whether it was kept.
- American Nurses Association: The follow-up appointment for patients with HF scheduled and documented prior to hospital discharge does not state a timeframe within when these patients must be seen. A minimum of 2 weeks is recommended (really 1 week is best).

Measure # 2473: Hospital 30-Day Risk-Standardized Acute Myocardial Infarction (AMI) Mortality eMeasure

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	3	0	0	3	100%
Health Professional	6	1	4	11	86%
Provider Organizations	3	1	1	5	75%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	0	1	2	3	0%
Supplier/Industry	0	0	1	1	
All Councils	**14**	**3**	**8**	**25**	**82%**
Percentage of councils approving (>60%)			**80%**		
Average council percentage approval			**72%**		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- There were no comments for this measure during the member voting period.

Measure #0643: Cardiac Rehabilitation Patient Referral from an Outpatient Setting

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	0	3	0	3	0%
Health Professional	10	1	0	11	91%
Provider Organizations	4	0	1	5	100%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	2	0	1	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**18**	**4**	**3**	**25**	**82%**
Percentage of councils approving (>60%)			80%		

Average council percentage approval	78%

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: We recommend revising this measure to capture whether a patient with a qualifying cardiovascular event actually received rehabilitation rather than assessing the number of patients who are referred to an outpatient cardiac rehabilitation/secondary prevention program. Data collection for such a measure would be more feasible as data could be captured using administrative claims, as opposed to burdensome chart review needed to assess referrals. We also recommend that this measure capture the different levels of cardiac rehabilitation that patients complete based on what is clinically appropriate for that patient.
- AmeriHealth Caritas: Same comments as with the inpatient referrla measure--the better measure would be actual participation in cardiac rehab where there are benefits to care. A referral is transfer but not an outcome.
- WellPoint: Recommend revising to capture if patient actually received rehab.
- Academy of Nutrition and Dietetics: The Academy of Nutrition and Dietetics (Academy) is voting in support of continuing Referral to Cardiac Rehabilitation performance measures #0642 and #0643 and remain endorsed by the NQF as these measures track the referrals to Cardiac Rehabilitation. These performance measures encourages providers and facilities, like hospitals, to keep track of how frequently they are using cardiac rehab for their patients (0642 and 0643 track the referral to CR from inpatient and outpatient sources). Only about 10 % of eligible patients get cardiac rehab and a big piece of improving that number is to get providers thinking of it as a regular part of their treatment for patients. The goal is to make the referral process easy and habitual. Studies clearly show that participation in cardiac rehab has a positive impact on patientslives (e.g., lower secondary events, lower morbidity, better QOL). Our US Healthcare through its summary of quality indicators reporting needs to see the benefit of cardiac rehabilitation as a way to improve lives, lower healthcare costs, and advance our collective awareness of the benefits of taking better care of ourselves - whether its with our heart health or overall goal to optimal health which includes nutrition health. The Academy and its Registered Dietitian Nutritionists collaborate with the American Association for Cardiovascular and Pulmonary Rehabilitation (AACVPR) on several cardiac issues for their patients/clients. Our Registered Dietitian Nutritionists who work in Cardiovascular and Wellness Nutrition receive referrals and make referrals as well as assist with tracking referrals via the performance measures #0642 and #0643. It is our intent to continue accelerating our Registered Dietitian Nutritionists to continue their involvement as they are greatly needed in cardiac rehabilitation. The Academy of Nutrition and Dietetics understands the importance of these measures that were previously included on the NQF recommended list and the Academy now votes to continue their inclusion. Thank you.
- American Nurses Association: This should include criteria for HF criteria for referral since the CMS ruling states that patients with HF must be stable (no hospitalization within the last 6 weeks – or major hospitalization within last 6 mos).

Measure #2452: Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	

Health Plan	1	2	0	3	33%
Health Professional	9	0	2	11	100%
Provider Organizations	2	1	2	5	67%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	2	0	1	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**16**	**3**	**6**	**25**	**84%**
Percentage of councils approving (>60%)			80%		
Average council percentage approval			80%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- America's Health Insurance Plans: We recommend revising this process measure to capture if a patient who has undergone a PCI is adherent to these medications, rather than assessing if the medication was prescribed. Data collection for such an outcome measure would be feasible as pharmacy claims could be used to assess P2Y12 agent and statin adherence.
- AmeriHealth Caritas: Not a perfect measure, but a great way to start a composite measure for post PCI care.
- WellPoint: Recommend revising to capture if PCI patient is adherent to medications vs if medication was prescribed.
- Adventist Health System: The reason for keeping this measure as measure stewardship "needs further explanation in light of the committee's discussion of the measure overlapping measure 0964".

Measure #2459: In-hospital Risk Adjusted Rate of Bleeding Events for patients undergoing PCI

Member Council	Yes	No	Abstain	Total Votes	% Approval*
Consumer	0	0	0	0	
Health Plan	3	0	0	3	100%
Health Professional	7	1	3	11	88%
Provider Organizations	0	3	2	5	0%
Public/Community Health Agency	0	0	0	0	
Purchaser	2	0	0	2	100%
QMRI	1	0	2	3	100%
Supplier/Industry	0	0	1	1	
All Councils	**13**	**4**	**8**	**25**	**76%**
Percentage of councils approving (>60%)			80%		
Average council percentage approval			78%		

*equation: Yes/ (Total - Abstain)

Voting Comments:

- Adventist Health System: There are too many issues raised by the committee that went unanswered to be able to vote yes on this item.

- Cleveland Clinic: The current exclusions limited to CABG are inadequate and should be expanded and specified to include other high risk cardiovascular procedures associated with increased bleeding like TAVR to allow patients better data about standard PCI bleeding rates.

REMOVE ENDORSEMENT OF MEASURES

Six measures previously endorsed by NQF have not been re-submitted, withdrawn from maintenance of endorsement, or not recommended for continued endorsement:

Measure	Measure Steward	Description	Reason for removal of endorsement
2458: Heart Failure (HF)- Left Ventricular Function (LVF) Testing	Centers for Medicare and Medicaid Services	Percentage of patients 18 years and older with Left Ventricular Function (LVF) testing performed within the previous 12 months for patients who are hospitalized with a principal diagnosis of Heart Failure (HF) during the reporting period.	Developer reviewed related and competing NQF-endorsed measures (#0079 and #0135) and determined the endorsed measures already reached the PQRS goal of meeting the needs of Eligible Providers to promote reporting and quality information, therefore an additional measure is not needed.
0077 Heart Failure (HF): Assessment of Activity Level	American Medical Association-PCPI	Percentage of patient visits for those patients aged 18 years and older with a diagnosis of heart failure with quantitative results of an evaluation of both current level of activity and clinical symptoms documented.	Developer submitted a new measure for endorsement, Measure #2450 Heart Failure: Symptom and Activity Assessment, which is intended to replace measure 0077 and 0078 with the intention of providing a more comprehensive assessment of patient status.
0078: Heart Failure (HF) : Assessment of Clinical Symptoms of Volume Overload (Excess)	American Medical Association-PCPI	Percentage of patient visits or patients with HF with assessment of clinical symptoms of volume overload (excess).	Developer submitted a new measure for endorsement, Measure #2450 Heart Failure: Symptom and Activity Assessment, which is intended to replace measure 0077 and 0078 with the intention of providing a more comprehensive assessment of patient status.
0093: Emergency Medicine: 12-Lead Electrocardiogram (ECG) Performed for Syncope	American Medical Association-PCPI	Type of score: Proportion Percentage of patients aged 60 years and older with an emergency department discharge diagnosis of syncope who had an ECG performed.	The developer reviewed the measure's performance data currently performing at 96.48% nationally and concluded the measure data would fail to meet the performance gap sub-criterion within the "importance to measure and report"

Measure	Measure Steward	Description	Reason for removal of endorsement
			evaluation criterion.
0132: Aspirin at arrival for acute myocardial infarction (AMI)	Centers for Medicare & Medicaid Services	Percentage of acute myocardial infarction (AMI) patients who received aspirin within 24 hours before or after hospital arrival.	Measure has been suspended from the Inpatient Quality Reporting program (IQR) for several years, with only voluntary reporting. CMS is considering removing it from IQR in the next rulemaking cycle and have no plans to continue with endorsement of the measure.
0664: Patient(s) with an emergency medicine visit for syncope that had an ECG.	Optum	This measure identifies patients with an emergency medicine visit for syncope that had an ECG done as part of their evaluation.	Developer will not be maintaining the measure going forward.

Measure Evaluation Summary Tables

LEGEND: Y = Yes; N = No; H = High; M = Moderate; L = Low; I = Insufficient

0133 In-Hospital Risk Adjusted Rate of Mortality for Patients Undergoing PCI

Submission | Specifications

Description: Risk adjusted rate of mortality for all patients age 18 and over undergoing PCI.

Numerator Statement: Patients 18 years of age and older with a PCI procedure performed during admission who expired

Denominator Statement: Patients 18 years of age and older with a PCI procedure performed during admission

Exclusions: 1. NCDR Registry patients who did not have a PCI (Patient admissions with a diagnostic cath only during that admission);

2. Patient admissions with PCI who transferred to another facility on discharge

Adjustment/Stratification: Risk Adjusted

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **Y-21**; **N-0**; 1b. Performance Gap: **H-11**; **M-8**; **L-2**; **I-0;** 1c. Impact: **H-20**; **M-0**; **L-1**; **I-0**

Rationale:

0133 In-Hospital Risk Adjusted Rate of Mortality for Patients Undergoing PCI

- The Committee acknowledged the importance of this outcome measure, noting that the importance of understanding mortality rates as a result of performance of a PCI procedure is self-evident.
- Data presented by the developer showed significant variability in PCI mortality across hospitals with the top hospitals performing the 10th percentile (0.7) and the low performing hospitals at the 90th percentile (2.7). Committee members concluded there is a strong performance gap and opportunity for improvement.
- Some Committee members suggested the developers should present the data trends for the measure for tracking performance improvement over time.
- Committee members agreed that the measure is high impact, as CAD and acute MI are major causes of morbidity and mortality associated with high health expenditures in the U.S.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-11**; **M-11**; **L-0**; **I-0** 2b. Validity: **H-11**; **M-11**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee agreed that the reliability and validity testing were sufficient to meet the criteria.
- Reliability testing was conducted at the measure score level and data element. For the performance measure level, the developers conducted a signal-to-noise reliability test with the overall score being 0.7 or greater. Some Committee members raised concerns that the testing was more acceptable for high volume hospitals when comparing high volume centers to low volume centers. Data element testing was conducted using a test-retest approach with misclassification at a low <3.5% across all centers.
- Empirical validity testing was not conducted; the developers felt it was not necessary other than to establish content validity of the model, as mortality is of unquestioned importance and readily assessed.
- Face validity was systematically assessed through an NCDR expert panel to establish agreement that the measure's performance measure score could be used to distinguish quality.

3. Feasibility: H-18; M-4; L-0; I-X0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

<u>Rationale</u>:

- The Committee agreed the measure is feasible to implement, as the measure has already been in use and collected via registry with a good track record.
- The Committee expressed concerns related to the cost of the registry and limited EMR extraction capabilities for the data elements of the measure.

0133 In-Hospital Risk Adjusted Rate of Mortality for Patients Undergoing PCI

4. Use and Usability: H-19; M-3; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

Rationale:

- The measure is currently not publicly reported, however, it is being used as a feedback mechanism for performance at participating hospital sites within the CathPCI Registry.
- The Committee acknowledged that although performance has improved overtime, there has been little improvement in performance of the measure in the past two years from 2011 and 2012.

5. Related and Competing Measures

- This measure directly competes with:
  - 0535 30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock)
  - 0536 (30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock).

Standing Committee Recommendation for Endorsement: **Y-22**; **N-0**

6. Public and Member Comment: May 27, 2014- June 25, 2014

- There were no public or member comments received for this measure.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0535 30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock

Submission | Specifications

Description: This measure estimates hospital risk-standardized 30-day all-cause mortality rate following percutaneous coronary intervention (PCI) among patients who are 18 years of age or older without STEMI and without cardiogenic shock at the time of procedure. The measure uses clinical data available in the National Cardiovascular Data Registry (NCDR) CathPCI Registry for risk adjustment. For the purpose of development and testing, the measure used a Medicare fee-for-service (FFS) population of patients 65 years of age or older with a PCI. However, the measure is designed to be used in the broader population of PCI patients.

Numerator Statement: The outcome for this measure is all–cause death within 30 days following a PCI procedure in patients without STEMI and without cardiogenic shock at the time of the procedure.

Denominator Statement: The target population for this measure includes inpatient and outpatient hospital stays with a PCI procedure for patients at least 18 years of age, without STEMI and without cardiogenic shock at the time of procedure, including outpatient and observation stay patients who have undergone PCI but have not been admitted.

Exclusions: Hospital stays are excluded from the cohort if they meet any of the following criteria:

0535 30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock

(1) PCIs that follow a prior PCI in the same admission (either at the same hospital or a PCI performed at another hospital prior to transfer).

This exclusion is applied in order to avoid assigning the death to two separate admissions.

(2) For patients with inconsistent or unknown vital status or other unreliable data (e.g. date of death precedes date of PCI);

(3) Subsequent PCIs within 30-days. The 30-day outcome period for patients with more than one PCI may overlap. In order to avoid attributing the same death to more than one PCI (i.e. double counting a single patient death), additional PCI procedures within 30 days of the death are not counted as new index procedures.

(4) PCIs for patients with more than 10 days between date of admission and date of PCI. Patients who have a PCI after having been in the hospital for a prolonged period of time are rare and represent a distinct population that likely has risk factors related to the hospitalization that are not well quantified in the registry.

Adjustment/Stratification: Risk Adjusted

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims, Other, Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **Y-18**; **N-1**; 1b. Performance Gap: **H-8**; **M-6**; **L-5**; **I-2;** 1c. Impact: **H-15**; **M-3**; **L-2**; **I-1**

<u>Rationale</u>:

- The Committee acknowledged the importance of this outcome measure, noting that the importance of understanding mortality rates as a result of performance of a PCI procedure for non-STEMI and non-cardiogenic shock patients is self-evident.
- The average performance on the measure is 98.2% with a narrow performance gap of 1 to 4.2 percent. Some Committee members interpret the results as a moderate performance gap, while others did not see an opportunity for improvement.
- A Committee member was concerned that there was an overlap with the measure's post discharge mortality rate which is similar to the current in-hospital mortality rate. The Committee member questioned if the measure's mortality rates excluded inpatient to which the developer confirmed it did not.
- Another Committee member questioned why the developer did not combine measure 0535 with measure 0536 with stratification for low-risk versus high-risk patients. The developer responded that the best approach based on their analysis is to have the two measures reported as a pair.
- Some Committee members raised concerns about the very small distribution of top versus low performers which may indicate that there is not enough distribution or variation in performance across hospitals.
- Developers noted the high prevalence and costs of PCIs. From 1987 to 2003, the number of PCI

0535 30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock

increased by 326% with more than 1 million PCI performed annually in the United States. The Committee agreed the measure addresses a significant health problem that is associated with high severity and high cost in care.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-4**; **M-11**; **L-6**; **I-0** 2b. Validity: **H-10**; **M-9**; **L-2**; **I-0**

<u>Rationale</u>:

- The Committee determined that the measure specifications were precisely specified and appropriate to capture mortality rates following PCI for non-STEMI and non-cardiogenic shock patients. The data elements were complete for implementation.
- There were some concerns raised from the Committee about the risk model used. The Committee cautioned the data extracted from the Cath PCI registry linked to the CMS mortality data might not be generalizable for patients <65 y/o.
- Reliability testing was conducted at both the performance measure score level and data element level. A test-retest approach was performed with the correlation coefficient being 0.256 which the Committee stated was sufficient for reliability.
- Some Committee members were concerned with the reliability of the data, which excluded hospitals with less than 25 PCIs, as low volume providers may have quality issues that will not be uncovered by this measure. The developer stated that excluding hospitals with less than 25 PCIs would provide more robust estimates around mortality at the individual site level.
- Validity testing was conducted at the data element level, with median agreement reported for 18 variables at 92 percent. Some members of the Committee acknowledge a threat to validity since not all data elements were used in the validity testing.

3. Feasibility: H-12; M-8; L-1; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

<u>Rationale</u>:

- The Committee agreed the measure is feasible for implementation. As mentioned with other measures using data elements from the CathPCI registry, there is a cost factor. However, for PCI, over 90 percent of hospitals that perform PCI participate in the registry which is feasible.
- The developer noted that there is lag time from the time of data element abstraction from the registry to matching it to the CMS data; however, it is the only method available currently.

4. Use and Usability: H-9; M-10; L-1; I-1

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

<u>Rationale</u>:

0535 30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock

- The measure currently is not being publicly reported. The Committee agreed that 30-day mortality rates have increased within the past few years and encouraged the use of this measure to better understand the mortality trends for quality improvement initiatives.

5. Related and Competing Measures

- This measure directly competes with:
- 0536 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock
- 0133 In-Hospital Risk Adjusted Rate of Mortality for Patients Undergoing PCI

Standing Committee Recommendation for Endorsement: **Y-17**; **N-4**

6. Public and Member Comment: May 27, 2014- June 25, 2014

- There were no public or member comments received for this measure.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0536 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock

Submission | Specifications

Description: This measure estimates hospital risk-standardized 30-day all-cause mortality rate following percutaneous coronary intervention (PCI) among patients who are 18 years of age or older with STEMI or cardiogenic shock at the time of procedure. The measure uses clinical data available in the National Cardiovascular Data Registry (NCDR) CathPCI Registry for risk adjustment. For the purpose of development, the measure cohort was derived in a Medicare fee-for-service (FFS) population of patients 65 years of age or older with a PCI. For the purpose of development and testing, the measure used a Medicare fee-for-service (FFS) population of patients 65 years of age or older with a PCI. However, the measure is designed to be used in the broader population of PCI patients.

Numerator Statement: The outcome for this measure is all-cause death within 30 days following a PCI procedure in patients with STEMI or cardiogenic shock at the time of the procedure.

Denominator Statement: The target population for this measure includes inpatient and outpatient hospital stays with a PCI procedure for patients at least 18 years of age, with STEMI or cardiogenic shock at the time of procedure, including outpatient and observation stay patients who have undergone PCI but have not been admitted. It is unlikely that patients in this cohort would not be admitted to the hospital, but we keep this criterion to be consistent with the complementary non-STEMI, non-cardiogenic shock PCI cohort.

Exclusions: Hospital stays are excluded from the cohort if they meet any of the following criteria:

(1) PCIs that follow a prior PCI in the same admission (either at the same hospital or a PCI performed at another hospital prior to transfer).

This exclusion is applied in order to avoid assigning the death to two separate admissions.

(2) For patients with inconsistent or unknown vital status or other unreliable data (e.g. date of death precedes date of PCI);

(3) Subsequent PCIs within 30-days. The 30-day outcome period for patients with more than one PCI may

0536 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock

overlap. In order to avoid attributing the same death to more than one PCI (i.e. double counting a single patient death), additional PCI procedures within 30 days of the death are not counted as new index procedures.

(4) PCIs for patients with more than 10 days between date of admission and date of PCI. Patients who have a PCI after having been in the hospital for a prolonged period of time are rare and represent a distinct population that likely has risk factors related to the hospitalization that are not well quantified in the registry.

Adjustment/Stratification: Risk Adjusted

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims, Other, Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **H-19**; **M-1**; 1b. Performance Gap: **H-16**; **M-4**; **L-1**; **I-0;** 1c. Impact: **H-17**; **M-4**; **L-0**; **I-0**

<u>Rationale</u>:

- Similar to 0535, the Committee agreed that the importance of the outcome is self-evident. The only difference between the two measures is that 0536 contains a sicker population with STEMI and cardiogenic shock.
- The Committee agreed that there is a significant performance gap and opportunity for improvement. The mean mortality is 12.6 percent with a range of 10.8 to 14.4 percent.
- The measure addresses a significant health problem with a very high severity, high cost patient population.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-3**; **M-17**; **L-1**; **I-0** 2b. Validity: **H-7**; **M-13**; **L-1**; **I-0**

<u>Rationale</u>:

- The Committee found the measure's specifications and exclusions to be reasonable. Similar to measure 0536, the data source is from the CathPCI registry and linked to the CMS mortality data with the same challenges discussed in the previous measure.
- The developer conducted reliability testing at the data element and performance measure score level. A test-retest approach was performed with an Intraclass Correlation Coefficient (ICC) of 0.122 which lead the Committee to conclude a moderate reliability score.
- Validity testing was conducted at the data element level with an overall agreement statistic reported, the median being 92 percent. The validation sample scored a 0.83 for the c-statistic which the Committee found to be sufficient for validity.

3. Feasibility: H-10; M-11; L-0; I-0

0536 30-day all-cause risk-standardized mortality rate following Percutaneous Coronary Intervention (PCI) for patients with ST segment elevation myocardial infarction (STEMI) or cardiogenic shock

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- Similar to 0535 and measures using data elements from the CathPCI registry, the Committee agreed that the measure is sufficient for feasibility. The same challenges were discussed as in the previous measures with the administrative burden and costs to implementation.

4. Use and Usability: H-10; M-11; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

Rationale:

- The Committee noted that the measure was originally NQF endorsed in 2009 and is currently up for re-endorsement. The measure is currently not publicly reported however the intention is for it to become publicly reported in the future.
- Some members of the Committee cautioned that public reporting may lead to unintended consequences with high-risk patients.

5. Related and Competing Measures

- This measure directly competes with:
- 0535 30-day all-cause risk-standardized mortality rate following percutaneous coronary intervention (PCI) for patients without ST segment elevation myocardial infarction (STEMI) and without cardiogenic shock)
- 0133 In-Hospital Risk Adjusted Rate of Mortality for Patients Undergoing PCI

Standing Committee Recommendation for Endorsement: **Y-19**; **N-2**

6. Public and Member Comment: May 27, 2014- June 25, 2014

- There were no public or member comments received for this measure.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0642 Cardiac Rehabilitation Patient Referral From an Inpatient Setting

Submission | Specifications

Description: Percentage of patients admitted to a hospital with a primary diagnosis of an acute myocardial infarction or chronic stable angina or who during hospitalization have undergone coronary artery bypass (CABG) surgery, a percutaneous coronary intervention (PCI), cardiac valve surgery (CVS), or cardiac transplantation who are referred to an early outpatient cardiac rehabilitation/secondary prevention program.

Numerator Statement: Number of eligible patients with a qualifying event/diagnosis who have been referred to an outpatient Cardiac Rehabilitation/Secondary Prevention (CR/SP) program prior to hospital discharge or have a documented medical or patient-centered reason why such a referral was not made.

0642 Cardiac Rehabilitation Patient Referral From an Inpatient Setting

(Note: The program may include a traditional CR/SP program based on face-to-face interactions and training sessions or may include other options such as home-based approaches. If alternative CR/SP approaches are used, they should be designed to meet appropriate safety standards and deliver effective, evidence-based services.)

Denominator Statement: Number of hospitalized patients in the reporting period hospitalized with a qualifying cardiovascular disease event/diagnosis who do not meet any of the criteria listed in the denominator exclusion section below.

Exclusions: Exceptions criteria require documentation of one or more of the following factors that may prohibit cardiac rehabilitation participation:

Patient factors (e.g., patient resides in a long-term nursing care facility).

Medical factors (e.g., patient deemed by provider to have a medically unstable, life-threatening condition).

Health care system factors (e.g., no cardiac rehabilitation/secondary prevention (CR/SP) program available within 60 min of travel time from the patient's home).

The only exclusion criterion for this measure is noted below:

Patients who expired before discharge.

Adjustment/Stratification: None

Level of Analysis: Facility, Clinician : Individual, Integrated Delivery System

Setting of Care: Hospital/Acute Care Facility, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Paper Medical Records, Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **H-0**; **M-19**; **L-3**; **I-0; IE-0**; 1b. Performance Gap: **H-17**; **M-5**; **L-0**; **I-0;** 1c. Impact: **H-20**; **M-2**; **L-0**; **I-0**

<u>Rationale</u>:

- Evidence provided by the developer for the referral measure included six ACC/AHA guidelines for heart attacks with grading of the evidence for referral to cardiac rehab programs and a diagram of the relationship between cardiac rehab programs to health outcomes: Lower Mortality/Morbidity, Higher Quality of Life, Risk Factor Modification, Improved Function & Exercise Capacity, Improved Medication Adherence, Reduction in Re-Hospitalization Rates, and Cost Effective Care. The developer also provided the results of the 2009 Cochrane Systematic Review which supported cardiac rehabilitation.
- The Committee agreed the evidence provided is sufficient. Some members of the Committee were concerned that there was not a direct applicability of the evidence to the process of care being measured; rather, it was inferred that patients with referrals will go to cardiac rehab and have improved outcomes, not that the referral itself results in improved outcomes. There was no direct evidence provided linking inpatient referral to enrollment in cardiac rehab and improved health outcomes. The developer stated the measure focus is on referral because the provider has control over referral to drive health outcome.

0642 Cardiac Rehabilitation Patient Referral From an Inpatient Setting

- The Committee acknowledged the high performance gap in referral and enrollment across all population groups that the measure can address. The developer presented data from two registries that showed the low participation of cardiac rehab. In 2012, 703 hospitals participated in ACTION- Registry GWTG; the mean result of cardiac rehab was 67%. For the CathPCI registry in 2012, of 1360 reporting entities, the mean result was 59%. The Committee noted the disparity among minorities and women. A Committee member asked about insurance status as a barrier to cardiac rehab, to which the developer replied it is not a major barrier since cardiac rehab is covered by most private insurance and Medicare. The developer acknowledged that it could be a barrier for those without coverage.
- The Committee agreed that the measure is a high priority measure. Committee members stated that cardiac rehab is a high impact, underutilized tool that can help improve quality of life and mortality. The developer noted only 14 percent of AMI patients and 30 percent of CABG patients currently utilize cardiac rehab post procedure.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-0**; **M-16**; **L-4**; **I-2** 2b. Validity: **H-0**; **M-16**; **L-6**; **I-0**

<u>Rationale</u>:

- For reliability testing, empirical testing was conducted with three samples: 7 hospitals using either paper or EHR records, the ACC/AHA ACTION-GWTG Registry, and the ACC CathPCI Registry. At the data element level, the 7 hospitals demonstrated reliability using intra-rater and inter-rater agreement between patient record reviews for two abstractors – inter-rater reliability for eligibility for CR – 95% (Kappa 0.77); referral to CR – 84% (Kappa 0.70); exceptions – 97% (Kappa 0.79). At the measure score level, a signal-to-noise analysis for both registries scored 0.99, above the accepted threshold of 0.7 for reliability.
- To demonstrate validity of the measure, the developer provided face validity. The measure score was assessed by 27 expert panel members of three ACC or AHA committees. 93% of the expert panel strongly supported the measure to accurately distinguish good and poor quality.
- Some members of the Committee raised concerns about missing patient population information with the sample size. The two registries do not fully represent all patients the measure addresses. The developer responded that the sample size is a good representation of the national trends overall with the exception of stable angina patients and valve surgery patients. The Committee recommended that the developer should follow up with STS for valve surgery data and the developer agreed.

3. Feasibility: H-7; M-14; L-1; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

<u>Rationale</u>:

- The Committee did not have any concerns with the feasibility of the measure. The data

0642 Cardiac Rehabilitation Patient Referral From an Inpatient Setting

elements are included in the both ACC/AHA ACTION-GWTG Registry and the ACC CathPCI Registry and are thus routinely collected electronically.

4. Use and Usability: H-3; M-15; L-3; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

Rationale:

- The Committee noted that the measure is not used in public reporting; however, it is currently being used for Professional Certification or Recognition Program ACTION Registry-GWTG Achievement Award and for quality improvement and benchmarking.
- The developer intends to use the measure for public reporting in the future.

5. Related and Competing Measures

- This measure directly competes with:
  - 0643 Cardiac Rehabilitation Patient Referral From an Outpatient Setting

Standing Committee Recommendation for Endorsement: Y-20; N-2

6. Public and Member Comment: May 27, 2014- June 25, 2014

Comments received:

- Commenters generally expressed support for the measure and the Committee's recommendation for endorsement. One commenter recommended a revision of the measure to capture more meaningful information such assessing whether patient received cardiac rehabilitation services rather than just assess whether a referral was made.

Committee response:

- Committee members generally agreed that participation is what is important and involves shared accountability with the patient. The Committee supports moving to outcome measures (participation) and would welcome submission of a participation measure for potential endorsement.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0964 Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients

Submission | Specifications

Description: Patients undergoing PCI who receive prescriptions for all medications (aspirin, P2Y12 and statins) for which they are eligible for at discharge

Numerator Statement: Patients who receive all medications for which they are eligible.

1. Aspirin prescribed at discharge (if eligible for aspirin as described in denominator)

AND

2. P2Y12 agent (clopidogrel, prasurgel, or ticlopidine) prescribed at discharge (if eligible for P2Y12 as described in denominator)

AND

3. Statin prescribed at discharge (if eligible for statin as described in denominator)

0964 Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients

Denominator Statement: Patients surviving hospitalization who are eligible to receive any of the three medication classes:

1) Eligibile for aspirin (ASA): Patients undergoing PCI who do not have a contraindication to aspirin documented

AND

2) Eligible for P2Y12 agent (clopidogrel, prasugrel, or ticlopidine): Patients undergoing PCI with stenting who do not have a contraindication to P2Y12 agent documented

AND

3) Eligible for statin therapy: Patients undergoing PCI who do not have a contraindication to statin therapy.

Exclusions: Discharge status of expired; patients who left against medical advice, patients discharged to hospice or for whom comfort care measures only is documented; patients discharged to other acute hospital

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Composite

Data Source: Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **H-13**; **M-7**; **L-1**; **I-0; IE-0**; 1b. Performance Gap: **H-8**; **M-13**; **L-1**; **I-0;** 1c. Impact: **H-18**; **M-4**; **L-0**; **I-0**

<u>Rationale</u>:

- Based on the guideline recommendations presented as well as a 2013 JAMA systematic review that included 91 publications with priority given to data from large randomized controlled trials, systematic reviews and meta-analyses, the Committee agreed that the evidence supports the use of aspirin and anti-platelet therapy.
- Data extracted from the CathPCI registry (which encompasses over 1,600 hospitals) identifies a performance gap of 83% (at the 25th percentile) and 76%, (at the 10th percentile) thus showing an opportunity for improvement.
- A commonly performed procedure for patients with CAD, PCI procedures are associated with high costs. Ensuring the use of evidence-based therapies that have been shown to improve survival, reduce risk of infarction is considered a high priority.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-16**; **M-6**; **L-0**; **I-0** 2b. Validity: **H-2**; **M-17**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee determined that the measure specifications were precise, noting that all codes necessary to calculate the measure were present and the specifications were consistent with the evidence presented.
- The measure was tested for reliability at the measure score level using correlation of random split halves of the participating hospitals. The correlation coefficient was determined to be high (0.92).
- The Committee acknowledged that, although not a significant threat to validity, there was no

0964 Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients

empirical validation demonstrating that improvement in performance of this measure resulted in improved outcomes. Validity testing provided demonstrated face validity only.

3. Feasibility: H-18; M-4; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

- Rationale: Overall the Committee agreed the measure was feasible to implement specifically for facilities that are using the CathPCI registry. Concerns were raised about the implications of hospitals not utilizing the registry.

4. Use and Usability: H-19; M-3; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

Rationale:

- Although not currently being publicly reported, this measure is in use in a quality improvement program (Blue Distinction Centers for Cardiac Care).
- The Committee acknowledged that the measure displayed trends in improvement of performance over time; however, this was significantly lower in the top performing sites.
- There is little burden of measurement or unintended consequences but substantial benefits to continuing the measure.

5. Related and Competing Measures

- This measure directly competes with:
    - 2452 Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy Percentage of patients aged 18 years and older for whom PCI is performed who are prescribed optimal medical therapy at discharge

      It was determined by the Committee that the only difference in specifications is that this clinician-level measure has additional exceptions for medical reasons, patient reasons and system reasons. The need for complete harmonization was emphasized.

Standing Committee Recommendation for Endorsement: Y-22; N-0

6. Public and Member Comment: May 27, 2014- June 25, 2014

Comments Received:

- Comments for this measure raised three issues:
    - Harmonization of medication in related measures (measures 2452 and 2379), specifically drugs for oral anti-platelet medications.
    - Data collection for adherence to medication. The commenter suggested revising the measure to capture adherence rather than assessing if the medication was prescribed. They noted it would help to enhance feasibility of pharmacy claims to be used in assessing P2Y12 agent and statin adherence.
    - Age specific clarification, the commenter requested a clarification of the appropriate age group for this measure. They noted the measure's description, denominator, numerator and/or exclusions did not specify age group.

Developer's Response:

- This measure has been tested and validated in the adult PCI population in patients 18 years of age and older. We agree that standardization of the measures presentation is an important objective. We defer to the NQF regarding the policies and procedures to achieve this objective for all measures submissions, including the presentation of age categories for the denominator

0964 Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients

population.

Committee Response:

- The Committee indicated that the evidence and guidelines for dual antiplatelet agents in patients with coronary artery disease and AMI are the same as for post-PCI. The evidence for post-CABG patients is less clear. As the Committee reviews other measures of antiplatelet agents in the cardiovascular portfolio, harmonization of the specified agents will be addressed.
- The Committee agreed that adherence measures are important. New measure #2379 Adherence to Anti-platelet Therapy after Stent Implementation measures adherence for P2Y12 agents. NQF endorsed measure # 0543 Adherence to Statin Therapy for Individuals with Coronary Artery Disease addresses adherence to statins in this population. The biggest difficulty is with aspirin which would not be captured.
- The Committee recommended to the measure developers that age inclusions should be explicit in the description for every measure.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2377 Defect Free Care for AMI

Submission | Specifications

Description: The proportion of acute MI patients >= 18 years of age that receive "perfect care" based upon their eligibility for each performance measures

Numerator Statement: The number of perfect care opportunities met from all eligible acute MI patients

Denominator Statement: All acute MI patients further broken down into STEMI and NSTEMI

Exclusions: The population is all patients equal to or over the age of 18 that have an acute MI. The population is further divided into two populations,those that have a STEMI and those that have an NSTEMI.

STEMI 41 StemiNoted = 1 AND AGE >= 18

NSTEMI 42 StemiNoted = 0 AND PosMarkers = 1 AND AGE >= 18

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Composite

Data Source: Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **H-11**; **M-11**; **L-0**; **I-0; IE-0**; 1b. Performance Gap: **H-12**; **M-7**; **L-2**; **I-0;** 1c. Impact: **H-15**; **M-7**; **L-0**; **I-0**

Rationale:

- The all-or-none composite measure encompasses eleven components of which the developer provided a systemic review and grading of empirical evidence. Based on ACC/AHA guidelines, evidence was presented to support the link to defect care for AMI and reduced mortality, which the Committee found sufficient.

2377 Defect Free Care for AMI

- The Committee concluded that the data presented by the developer of a distribution of results with a mean of 59% and a median of 66% demonstrates an opportunity for improvement.
- Considered a leading cause of morbidity and mortality affecting large numbers, AMI is a significant health problem in terms of both severity and cost, making this a high priority.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-16**; **M-6**; **L-0**; **I-0** 2b. Validity: **H-6**; **M-15**; **L-1**; **I-0**

Rationale:

- Reliability testing was done at the level of the performance measure score and at the level of the data element.
- Testing at the performance score level was conducted for the level of analysis and data source as specified. The data used in testing was obtained from the ACTION Registry-GWTG for CY2011-2012. These data initially included 558 hospitals and 207,526 patients, although not all of these hospitals/patients were included in the testing.
- Developers also assessed the inter-rater reliability of the data elements by comparing abstracted data for 330 patients from the ACTION Registry-GWTG who were discharged in CY2010.
- No empiric validity testing was conducted for the composite measure; however the developers stated that the content validity of this measure was achieved by noted experts. Additionally, there was no description of the systematic nature of this assessment or any numeric results of that assessment provided.

3. Feasibility: H-7; M-12; L-2; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed that the data currently being collected through voluntary reporting via the Get With the Guidelines (GWTG) registry is feasible.

4. Use and Usability: H-6; M-14; L-0; I-1

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

Rationale:

- The measure is presently being used for Professional Certification or Recognition with AR-GWTG program used for I with Benchmarking. There are plans for use in public reporting.
- The Committee stated concern that if the measure is used for accountability purposes, it may be difficult to distinguish between high and low performers given that only a small number of hospitals are reporting this measure.
- There were concerns of potential unintended consequences in that hospitals may not report every MI patient because pay-for-performance initiatives.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-19**; **N-3**

6. Public and Member Comment: May 27, 2014- June 25, 2014

2377 Defect Free Care for AMI

Comments Received:

- There was one comment received for this measure. The commenter raised concerns of the potential financial burden for hospitals to participate in the Action Registry, as there will be costs required for implementation, maintenance, and chart abstractions of the data registry.

Developer's Response:

- The ACTION Registry-GWTG is designed to capture all patients that present with an MI. The CathPCI Registry does not capture MI patients that may not undergo a diagnostic catheterization or PCI. If the Defect Free Care Composite Measure was applied to the CathPCI Registry, those MI patients that did not undergo at minimum a diagnostic catheterizations or PCI would not be captured. The other issue is that diagnostic catheterizations are optional in the CathPCI Registry. If the site only submits their PCI cases, many MIs will be lost in the measure.

Committee response:

- The Committee agreed that the burden of participating in multiple registries is a significant concern and encouraged developers (particularly ACC that has several registries) to consider the burden since there is a great deal of overlap among registries. Some Committee members noted the evolution in data capture and measurement and a need to develop eMeasures and leverage the use of EHRs.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2379 Adherence to Antiplatelet Therapy after Stent Implantation

Submission | Specifications

Description: Average proportion of days covered (PDC) for individuals with antiplatelet therapy during the 12 months following implantation of a coronary artery drug-eluting stent (DES) regardless of indication or a bare-metal stent (BMS) for acute coronary syndrome (ACS).

Numerator Statement: The sum of the days covered by the days' supply of all antiplatelet prescriptions during the days measured in the denominator

Denominator Statement: The sum of the days measured for all individuals who undergo a coronary artery DES regardless of indication or BMS for ACS at any time during the first 12 months of the 24-month measurement period and have at least two prescriptions for antiplatelet therapy during the 12 months following stent placement

Exclusions:

•Placements of a coronary artery BMS for a non-ACS indication are excluded.

•Individuals with contraindications to receiving the antiplatelet therapy are excluded.

Adjustment/Stratification:

Level of Analysis: Clinician : Group/Practice, Health Plan, Integrated Delivery System, Population : State

Setting of Care: Ambulatory Care : Clinician Office/Clinic

Type of Measure: Process

Data Source: Administrative claims

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

2379 Adherence to Antiplatelet Therapy after Stent Implantation

1a. Evidence: **H-2**; **M-11**; **L-5**; **I-X; IE-4**; 1b. Performance Gap: **H-8**; **M-12**; **L-1**; **I-1;** 1c. Impact: **H-11**; **M-10**; **L-1**; **I-0**

Rationale:

- The Committee agreed that there is evidence to support this measure as the developer presented three guidelines that recommend use of anti-platelet agents for 12 months – Class I Recommendation.
- The developers also presented two studies that summarize the findings of two recent studies on the relationship between adherence to P2Y12 inhibitor therapy following the implantation of a coronary artery DES or BMS and patient outcomes. Both studies found that patients with PDC < 80% had higher mortality.
- Data presented on current performance for states, prescription drug plans, ACOs and physician groups with the mean values for all groups between 0.75-0.78, demonstrating a significant opportunity for improvement.
- Stent placement procedures are frequently performed and account for high resource use and lack of antiplatelet adherence is associated with severe patient and societal consequence, making this a high priority**.**

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-2**; **M-15**; **L-0**; **I-1** 2b. Validity: **H-1**; **M-15**; **L-1**; **I-1**

Rationale:

- According to the Committee, the specifications were detailed and consistent with evidence. This measure used pharmacy data to calculate the amount of medication dispensed for three medications: clopidogrel, prasugrel, and ticagrelor.
- ICD-9 and ICD-10 codes to identify patients with coronary artery stent placement in the inpatient and outpatient setting were included as well as contraindications.
- The Committee had concerns with the inclusion of patients receiving bare metal stents without an acute coronary syndrome indication. It was recommended that the developer revise to exclude patients who received bare metal stents. During the Committee post-call, the developer presented the revised specifications for consideration, including any claim with a code listed in the specifications without a corresponding ACS claim (i.e., ICD-9 code of 410.xx and 411.xx). The Committee was satisfied with the newly revised information.
- Empiric reliability testing was conducted using a signal-to-noise analysis which was performed at the level of the measure score using Medicare claims data for states, drug plans, ACOs and physician groups. Based on the data presented, reliability was proven to be adequate across all measurement units: state level (.99), drug plan (.98), ACOs (.99) and physician groups (.99).
- The developer reports that due to sample size issues only a small percentage of physician groups (13.3%) have an adequate number of patients for reliable measurement. The reliability results for states, drug plans and ACOs were high (0.98=0.99).
- Face validity was assessed by the developer's Technical Expert Panel (TEP). TEP members who evaluated the measure for face validity 80% (12/15) agreed that the measure was valid as specified.

3. Feasibility: H-5; M-13; L-0; I-0

2379 Adherence to Antiplatelet Therapy after Stent Implantation

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed that the measure was feasible to implement as it uses administrative claims and pharmacy claims.

4. Use and Usability: H-0; M-17; L-1; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

Rationale:

- Although not currently in use, this measure has been submitted through the Measures under Consideration process for the CMS ACO Shared Savings program.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-16**; **N-1**

6. Public and Member Comment: May 27, 2014- June 25, 2014

Comments Received:

- There were a few concerns raised from the comments received, which include:
  - Harmonization of medication in related measures (measures 0964 and 2379), specifically drugs for oral anti-platelet medications.
  - Potential inaccuracy of claims data used for the measure. The commenter highlighted that the use of administrative prescription data for compliance could be troublesome as it does not capture all data.
  - One commenter emphasized the importance of revising the measure to ensure that the proportion of days covered meets a minimum threshold so that the patient receives the appropriate clinical benefit. The commenter requested for clarification of the denominator statement.

Developer's Response:

- NQF 2379 has been harmonized to the extent feasible with related measures. Regarding medications, the measure is specified with the drug class, specific medications by active ingredient name, and all clinically appropriate NDCs containing the active ingredient. Regarding the three year look-back period for inactive NDCs, it is a convention originally initiated by NCQA to ensure that medications which may still be dispensed are captured. This is applicable to drug products that have been discontinued by the drug manufacturer but are still approved by the FDA. If a medication becomes inactive because it is no longer approved by the FDA, that medication would be removed from the NDC list for the measure during a scheduled maintenance update.
- Currently we are not aware of any P2Y12 inhibitors offered as $4 prescriptions. Therefore missing claims from these programs will not affect measure rates. We acknowledge that there may be other sources of missing data (e.g., drug samples) that cannot be accounted for with administrative data; however, at this time, we do not believe that the impact will be significant in overall measure rates, and attempting to capture these data by revising the measure would put an undue burden on providers
- Due to relatively limited sample sizes for patients receiving stents, the dichotomous version of the measure did not produce reliable scores at the included levels of analysis. Therefore, the continuous variable measure was recommended since the scores were reliable at all levels of analysis. Regarding the denominator, only patients with at least 2 prescription drug claims are included in the measure. We have slightly modified the language in the specification to clarify that at least two "prescription drug claims" for P2Y12 inhibitors are required.

2379 Adherence to Antiplatelet Therapy after Stent Implantation

Committee's Response:

- The Committee indicated that the evidence and guidelines for dual antiplatelet agents in patients with coronary artery disease and AMI are the same as for post-PCI. The evidence for post-CABG patients is less clear. As the Committee reviews other measures of antiplatelet agents in the cardiovascular portfolio, harmonization of the specified agents will be addressed.
- The Committee reviewed the developer response and noted that the measure only applies to patients with drug benefit. During the initial measure evaluation the Committee raised similar concerns and the developer agreed to limit the measure to health plans and ACOs and not at the practice level of analysis. Clinicians noted that samples are much less available now.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2411 Percutaneous Coronary Intervention (PCI): Comprehensive Documentation of Indications for PCI

Submission | Specifications

Description: Percentage of patients, aged 18 years and older, for whom percutaneous coronary intervention (PCI) is performed with comprehensive documentation for the procedure that includes, at a minimum, the following elements: priority (acute coronary syndrome, urgent, elective, emergency/salvage); presence and severity of angina symptoms; use of antianginal medical therapies within two weeks prior to the procedure, if any; presence, results, and timing of non-invasive stress test, fractional flow reserve (FFR), or intravascular ultrasound (IVUS), if performed; and significance of angiographic stenosis (may be quantitative or qualitative) on coronary angiography for treated lesion.

Numerator Statement: Patients with comprehensive documentation for the procedure that includes, at a minimum, the following elements:

- Priority: acute coronary syndrome, urgent, elective, emergency/salvage
- Presence and severity of angina symptoms [eg, Canadian Cardiovascular Society Classification (CCS) system]
- Use of antianginal medical therapies within two weeks prior to the procedure, if any
- Presence, results, and timing of non-invasive stress test FFR or IVUS, if performed
- Significance of angiographic stenosis (may be quantitative or qualitative) on coronary angiography for treated lesion

Denominator Statement: All patients aged 18 years and older for whom PCI is performed

Exclusions: None

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **H-4**; **M-17**; **L-1**; **I-0; IE-0**; 1b. Performance Gap: **H-18**; **M-2**; **L-4**; **I-0;** 1c. Impact: **H-19**; **M-3**; **L-0**;

2411 Percutaneous Coronary Intervention (PCI): Comprehensive Documentation of Indications for PCI

I-0

Rationale:

- The Committee agreed that the evidence presented from the summary of two clinical practice guidelines, 1) 2012 Focused Update for Appropriateness of Use Criteria (AUC) and 2) 2011 ACCF/AHA/SCAI Guideline for PCI clearly outlined nine indications for PCI however, no evidence is presented on how documentation is related to patient outcomes.
- The developer presents data from the registry that displays an opportunity for improvement with a mean performance rate of 43.3% in 2011 and 34.3% in 2012.
- CAD is among the number one leading cause of death in the United States. There are approximately 600,000 PCIs performed annually at a cost of about $12 billion. Of these procedures, 12% were inappropriate (patients with little or no angina and low risk ischemia on stress test). This represents a risk to patients of unnecessary complications and healthcare dollars with little or no benefit.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-7**; **M-15**; **L-0**; **I-0** 2b. Validity: **H-6**; **M-14**; **L-1**; **I-1**

Rationale:

- The measure specifications were detailed and consistent and tested for use with the CathPCI registry which is owned by the developer, ACC. The specifications indicate patients for whom more than one PCI procedure is performed, with the most recent PCI procedure counted.
- Empiric testing was performed on all elective PCIs entered into the CathPCI registry in 2012 using signal-to-noise analysis. Reliability results improved with number of procedures; for the minimal number of procedures (>10) the reliability is 0.76.
- Face validity was the only method of testing for validity and determined to be high. The testing was performed only on elective PCIs however, the developer report that results for acute/urgent PCIs was low (<0.3%).
- The Committee addressed a potential threat to validity in that the missing data element for stress testing may have implications: lack of documentation or unmappable patients because they did not meet the appropriate use criteria. Based on the data presented, 40% of patients were not included. The developer identified the missing data as those who did not receive a prior stress test.

3. Feasibility: H-13; M-9; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- The Committee agreed that the data elements are routinely acquired during care delivery for patients being considered for PCI.
- The Committee agrreed that the benefits of the measure appear to outweigh any potential unintended consequences.

4. Use and Usability: H-13; M-8; L-0; I-1

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and

2411 Percutaneous Coronary Intervention (PCI): Comprehensive Documentation of Indications for PCI

3b. Quality Improvement)

Rationale:

- Although this measure is presently not being publicly reported, a voluntary program is now being piloted using NCDR with another measure (30 day risk standardized readmission following PCI).

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-21**; **N-2**

6. Public and Member Comment: May 27, 2014- June 25, 2014

Comments Received:

- There was one comment received for this measure. The commenter did not support the measure, noting that assessment of comprehensive documents should not be used to assess quality performance but rather should be done as a practice of medicine. The measure should assess the appropriateness of PCI, and not just documentation.

Committee's Response:

- The Committee supports moving toward more outcome measures and that developers should incorporate these suggestions in the future.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2450 Heart Failure: Symptom and Activity Assessment

Submission | Specifications

Description: Percentage of patient visits for those patients aged 18 years and older with a diagnosis of heart failure with quantitative results of an evaluation of both current level of activity and clinical symptoms documented

Numerator Statement: Patient visits with quantitative results of an evaluation of both current level of activity and clinical symptoms documented

Denominator Statement: All patient visits for those patients aged 18 years and older with a diagnosis of heart failure

Exclusions: Not applicable. No exclusions for this measure.

Adjustment/Stratification:

Level of Analysis: Clinician : Individual

Setting of Care: Ambulatory Care : Clinician Office/Clinic, Home Health, Post Acute/Long Term Care Facility : Inpatient Rehabilitation Facility, Post Acute/Long Term Care Facility : Nursing Home/Skilled Nursing Facility, Ambulatory Care : Outpatient Rehabilitation

Type of Measure: Process

Data Source: Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

2450 Heart Failure: Symptom and Activity Assessment

1a. Evidence: **H-1**; **M-13**; **L-3**; **I-1 IE-0**; 1b. Performance Gap: **H-16**; **M-3**; **L-0**; **I-0;** 1c. Impact: **H-16**; **M-2**; **L-2**; **I-0**

Rationale:

- The Committee noted that there was no information on the quantity, quality, or consistency of the evidence submitted for two of the three guideline recommendations. Additionally, the background evidence was driven from poor recommendations both in ACCF AHA (2013) guidelines and HFSA (2010).
- Based on the PINNACLE registry which includes over 1,200 providers, the mean performance rate was 36.8% in 2011 and 35.3% in 2012, illustrating a significant opportunity for improvement.
- Approximately 5.1 million Americans aged 20 years and older are currently suffering from HF. The impact of heart failure is especially apparent among elderly patients, with an incidence rate of nearly 10 per 1000 population among patients aged 65 years and older. Assessing better measures of accountability for documenting assessment of clinical activity and clinical system functions are important to quality of care, thus making this measure a high priority.

2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-11**; **M-9**; **L-0**; **I-0** 2b. Validity: **H-1**; **M-16**; **L-2**; **I-1**

Rationale:

- The Committee determined that the measure specifications were precise and consistent with the evidence presented.
- The Committee agreed that reliability of the measure was demonstrated, with the reliability results from a beta-binomial model measuring signal-to-noise ratio at .99.
- Validity testing was based on face validity of the data extracted from the PINNACLE registry. 63% of 16 respondents either agree or strongly agree that this measure can accurately distinguish good and poor quality of care.
- The Committee believed there to be subjectivity of how patients were assessed potentially from New York Heart Association Classification, but overall believed this measure to be scientifically acceptable.

3. Feasibility: H-1; M-2; L-3; I-4

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- There were concerns regarding the consistency of extraction of the data components. Variable documentation across multiple health systems may lead to inconsistencies in implementation of the measure or extracting the data to calculate the measure.

4. Use and Usability: H-2; M-3; L-5; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

Rationale:

- The Committee noted that the measure is currently in use in accountability programs, including ACC Cardiology Practice Improvement Pathway (CPIP)/Bridges to Excellence Cardiovascular Practice Recognition Program and Quality Improvement with Benchmarking (external benchmarking to multiple organizations) - PINNACLE Registry. There are plans for use in public

2450 Heart Failure: Symptom and Activity Assessment

reporting.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-16**; **N-3**

6. Public and Member Comment: May 27, 2014- June 25, 2014

Comments received expressed concerns with endorsing this measure:

- The evidence supporting symptom and activity assessment is based only on expert consensus, and there is therefore a lack of data suggesting that better performance would lead to improved patient outcomes.
- This measure only assesses if an activity assessment occurred but it does not capture actions taken based on the survey results. Additionally, not every physician office visit by a patient with heart failure pertains to cardiovascular care, and evaluation of activity level and clinical symptoms may be unnecessary and duplicative.
- One commenter agreed with the Committee's comments regarding the time to complete the survey as well as literacy levels may be a barrier to successful implementation. The survey may be appropriate for a cardiologist, but the commenter has concerns about adding another mandate to the already short face-to-face time with patients during a visit.

Committee response:

The Committee reviewed their prior discussion that focused on the importance of getting physicians to document activity and function which is related to mortality. The Committee and developers acknowledge that the NYHA classification is subjective but clinical trials using it are informative. The developer clarified that the measure is "for patients either in their initial evaluation for heart failure and in every follow-up appointment for heart failure". Committee members suggested that a Patient-reported Outcome measures would be important for these patients

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2455 Heart Failure: Post-Discharge Appointment for Heart Failure Patients

Submission | Specifications

Description: Percentage of patients, regardless of age, discharged from an inpatient facility to ambulatory care or home health care with a principal discharge diagnosis of heart failure for whom a follow up appointment was scheduled and documented prior to discharge (as specified)

Numerator Statement: Patients for whom a follow up appointment was scheduled and documented prior to discharge including either:

- an office visit for management for heart failure with a physician OR advanced practice nurse OR physician assistant OR

- a home health visit for management of heart failure

Denominator Statement: All patients, regardless of age, discharged from an inpatient facility (ie, hospital inpatient or observation) to ambulatory care (home/self care) of home health care with a principle discharge diagnosis of heart failure

Exclusions: Denominator exclusions include:

Patient was discharged to a health care facility for hospice care, to home for hospice care, or to a rehabilitation facility.

2455 Heart Failure: Post-Discharge Appointment for Heart Failure Patients

Patient left against medical advice.

Patient expired.

Denominator exceptions include:

Documentation of medical reason(s) for not documenting that a follow up appointment was scheduled

Documentation of patient reason(s) for not documenting that a follow up appointment was scheduled (eg, international patients,

patients from state and/or local corrections facilities for whom scheduling the appointment is prohibited)

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Process

Data Source: Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **H-3**; **M-13**; **L-1**; **I-0; IE-1**; 1b. Performance Gap: **H-17**; **M-1**; **L-0**; **I-0;** 1c. Impact: **H-19**; **M-0**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee had varied perspectives on the evidence presented in support of this measure. Some believed that there was sufficient literature, including a meta-analysis and several studies that demonstrated that those who have greater contact with the healthcare system tend to do better and have a lower readmission rate. Others believed that although there was evidence that a combination of discharge planning, case management interventions and care transitions reduce readmissions for heart failure, there was no evidence indicating that the post-discharge appointment alone resulted in improved outcomes.
- The developer presents data on results from 2012 (mean 44.6%) which is improved from 2011 (mean 16.8%).
- The developers report that findings from Get With the Guidelines data, summarized in a 2011 article, demonstrate disparities in post-discharge follow-up: “After multivariable adjustment for baseline characteristics of the study population, the odds of early follow-up were 13% lower in women compared to men and 16% lower in black patients compared to patients of other races.”
- CHF is a leading cause of morbidity and mortality; reducing morbidity, mortality, and readmissions have been a national priority. The cost implications presented are substantial, noted as $30 billion annually.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-6**; **M-11**; **L-1**; **I-0** 2b. Validity: **H-0**; **M-15**; **L-4**; **I-0**

<u>Rationale</u>:

- The Committee determined that the measure specifications were precise, noting that all codes necessary to calculate the measure were present and the specifications were consistent with the evidence presented.
- Empiric reliability testing was performed for the measure score using signal-to-noise analysis on in the derivation cohort based on the GWTG database records from 2011 and 2012. An overall Signal-to-Noise ratio (SNR) was estimated among sites with at least 200 patients, as well as

2455 Heart Failure: Post-Discharge Appointment for Heart Failure Patients

hospital-specific SNR estimates.

- Face validity of the measure score was assessed (no empiric testing) by 17 members from three ACC or AHA committees not involved with the measure development. 69% of respondents either agree or strongly agree that this measure can accurately distinguish good and poor quality.

3. Feasibility: H-9; M-10; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

Rationale:

- This measure is specified by use in a registry, which is the Get With The Guidelines®-Heart Failure Patient Management Tool.

4. Use and Usability: H-10; M-9; L-0; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

Rationale:

- The measure currently captures physician office visits and home health but should be enlarged to include telephone visit with biometric data.
- The developer described the measure as currently in use in two programs, but not publicly reported. Plan for public reporting is incorporation in CMS PQRS program, but no timeframe given. Measure improvement seen in limited time of data collection for performance. Only concern is public report, but confident in its occurrence within 6 years.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: Y-18; N-1

6. Public and Member Comment: May 27, 2014- June 25, 2014

Comment Received:

- One commenter suggested a revision of the measure to capture whether the patient had a follow-up visit, not just the appointment as it would have a highlight process to outcome.

- Committee Response:
  - The Committee supports moving to outcome measures and would welcome submission of the suggested measures for potential endorsement.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2459 In-hospital Risk Adjusted Rate of Bleeding Events for patients undergoing PCI

Submission | Specifications

Description: Risk adjusted rate of intra and post procedure bleeding for all patients age 18 and over undergoing PCI .

Numerator Statement: Patients 18 years of age and older with a post-PCI bleeding event as defined below:

Post-PCI bleeding defined as any ONE of the following:

1. Bleeding event w/in 72 hours ; OR
2. Hemorrhagic stroke; OR

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3. Tamponade ; OR

4. Post-PCI transfusion for patients with a pre-procedure hgb >8 g/dL and pre-procedure hgb not missing; OR

5. Absolute hgb decrease from pre-PCI to post-PCI of >= 3 g/dl AND pre-procedure hgb =<16 g/dL AND pre-procedure hgb not missing.

Denominator Statement: Patients 18 years of age and older with a PCI procedure performed during admission

Exclusions: 1. NCDR Registry patients who did not have a PCI (Patient admissions with a diagnostic cath only during that admis sion);

2. Patients who died on the same day of the procedure

3. Patients who had CABG during the admission

4. Patients with pre procedure hemoglobin <8 g/dL (severely anemic)

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Composite

Data Source: Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **Y-21; N-0**; 1b. Performance Gap: **H-19**; **M-2**; **L-0**; **I-0;** 1c. Impact: **H-17**; **M-3**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee agreed that the evidence presented from several large studies, including a study from the Mayo Clinic, demonstrated "that sheath size, intensity and duration of anticoagulation with heparin, and procedure time were each independent predictors of [bleeding] complications."
- It was also noted that the distribution of hospitals' observed to expected ratios show that there are some sites with excellent performance and others with rates of bleeding that are 80% or greater than expected. Data for 2011 and 2012 on more than 600,000 PCIs each year showed a mean post-PCI bleeding rate of 5.7% in 2011 and 5.5% in 2012.
- The developer reports that from the registry they observed "some statistically significant differences by gender, race and insurance status, the absolute rates after patient-level adjustment were clinically marginal, except for gender which is a strong risk factor for bleeding."
- The developers note that " In this large registry of patients undergoing PCI, post procedural bleeding events were associated with increased risk of in-hospital mortality, with an estimated 12.1% of deaths related to bleeding complications, illustrating a high priority

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-15**; **M-7**; **L-0**; **I-0** 2b. Validity: **H-17**; **M-5**; **L-0**; **I-0**

<u>Rationale</u>:

- **The Committee determined that the measure specifications were precise, noting that all codes necessary to calculate the measure were present and the specifications were consistent with the evidence presented.**
- **Empiric reliability testing was performed using data from a cohort of the NCDR CathPCI**

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(2012). Signal-to-noise testing showed a hospital reliability ranging from 0.76 to 0.92. Data element reliability and validity were assessed by audit of the data against medical record abstraction. Percent agreement and Kappa values are presented. Three data elements had <70% agreement (CAD presentation, angina l classification, and PCI indication), indicating suboptimal reliability. • **The Committee accepted the systematic assessment of face validity conducted by the developers; in this assessment, the group of experts ensured the data dictionaries and metrics were consistent across registries. They also reviewed and approved the methodology and results of the bleeding outcome and model.** • **The test sample appears adequate to generalize for widespread implementation. The results demonstrate sufficient reliability for most, but not all data elements, for identifying differences in performance.**
3. Feasibility: H-19; M-5; L-0; I-0 *(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)* Rationale: • No concerns with feasibility as the developer noted that the data is available via several methods: electronic transfer to the registry from the procedure/care setting; web-based tool for manual data entry or from an EHR.
4. Use and Usability: H-16; M-5; L-0; I-0 *(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)* Rationale: • This measure was noted as currently being used in quality improvement programs with benchmarking as well as the Blue Distinction Centers for Cardiac Care, a national designation program that recognizes hospitals that demonstrate expertise in delivering quality specialty care, safely and effectively (sponsored by Blue Cross Blue Shield). • The Committee noted a potential unintended consequence is physician transparency and their willingness to report and record adverse events.
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-22**; **N-0**
6. Public and Member Comment: May 27, 2014- June 25, 2014 Comments Received: • Two comments were received for this measure. One supported the measure while the other highlighted some concerns. The commenter expressed concern that patients may be misled by the measure results and perhaps be dissuaded from going to a high quality center. Additionally, the commenter noted flaws in the measure's specifications and routine surveillance. Developer's Response: • The risk adjustment model employed for this measure has undergone substantial validation to ensure that it accounts for numerous aspects of case mix. • As is the case for all of its measures, the ACC will continue to perform surveillance to ensure that the measures characteristics remain valid and relevant. This will include an assessment of the extent to which the small minority of patients (<1.5%) who undergo major surgery during the episode of care during which their PCI occurred, influences the results of the measure. • The NCDR applies an extensive data quality program that includes but is not limited to an audit.

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The audit program continues to expand in scope to include additional sites and includes outlier assessment to facilitate targeted audits.

Committee Response:

- The Committee acknowledged the excellent points raised by the comments and noted the good responses by the developer. The Committee supported the developer's plan to consider the concerns raised regarding exclusions within their surveillance of the measure.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

2473 Hospital 30-Day Risk-Standardized Acute Myocardial Infarction (AMI) Mortality eMeasure

Submission | Specifications

Description: This measure estimates hospital 30-day risk-standardized mortality rates following admission for AMI using clinical information collected at presentation in an electronic health record (EHR). Mortality is defined as death from any cause within 30 days of the index admission date.

Numerator Statement: The outcome for this measure is 30-day all-cause mortality. We define all-cause mortality as death from any cause within the 30 days after the index admission date.

Denominator Statement: The cohort includes inpatient admissions for patients aged 65 years and older who were discharged from short-term acute care hospitals with a principal discharge diagnosis of AMI.

Exclusions: The measure excludes index admissions:

1) For patients who were discharged against medical advice (AMA) (because providers did not have the opportunity to deliver full care and prepare the patient for discharge);

2) For patients who were transferred in from another short-term acute care institution (because the death is attributed to the hospital where the patient was initially admitted);

3) With unreliable data (age >115 years);

4) That were not randomly selected from a patient's multiple qualifying AMI admissions in a year (because AMI patients may have multiple admissions in a year and the measure includes one randomly selected AMI admission per patient per year);

5) With unknown death (missing vital status) after linking to the Medicare Enrollment Database or other source of death data.

Adjustment/Stratification:

Level of Analysis: Facility

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Outcome

Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Electronic Clinical Data : Laboratory, Other

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap, 1c. High Impact)

1a. Evidence: **Y-19**; **N-0**; 1b. Performance Gap: **H-16**; **M-3**; **L-1**; **I-1;** 1c. Impact: **H-19**; **M-2**; **L-0**; **I-0**

Rationale:

- Adequate evidence was provided to support the rationale of the relationship between AMI

2473 Hospital 30-Day Risk-Standardized Acute Myocardial Infarction (AMI) Mortality eMeasure

mortality and complex critical aspects of care such as communication between providers, patient safety and coordinated transitions to the outpatient environment.
- Performance measure scores from the measure as specified were calculated using data from 280 hospitals who participated in the ACTION Registry-Get With The Guidelines (AR-G) that were merged with CY2009 Medicare Part A claims data. These data included information on 20,540 Medicare patients aged 65 and older with an AMI admission.
- The risk-standardized mortality rates derived from these registry data ranged from of 9.6% to 13.1% (mean=10.8%).
- AMI mortality is high priority; the ddevelopers noted the economic burden associated with AMI (i.e., In 2008, AMI was the 6th most expensive condition treated in U.S. hospitals and the 6th most expensive condition billed to Medicare, thus characterizing this as a high priority.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-2**; **M-13**; **L-4**; **I-2** 2b. Validity: **H-4**; **M-14**; **L-3**; **I-1**

<u>Rationale</u>:

- The eMeasure specification captures the data elements and measure logic needed for automated measure calculation. All necessary codes to identify MI patient discharges, DOB, death, discharge, and in-transfer status were captured. The data elements required for risk adjustment- age, heart rate, systolic blood pressure, troponin ratio, creatinine- were also presented.
- This outcome measure is risk-adjusted using a statistical risk model. The descriptions and values for the five variables used in the risk-adjustment model are included in the specifications (age, heart rate, systolic blood pressure, troponin ratio and initial creatinine value). Based on the stability of the odds ratio for these values, from data element reliability testing (performed with registry data) confirms its reliability.
- Validity testing was conducted at both the data element level and the measure score level. Performance measure score validity testing was conducted by correlating the risk-adjusted AMI mortality rates calculated from AR-G registry data for CY2009 using the risk-adjustment model developed for this measure to the risk-adjusted AMI mortality rates calculated from administrative claims data for CY2009 using a different risk-adjustment model. The Pearson correlation value was considered high (at 0.86), displaying a high degree of association between the two sets of scores.

3. Feasibility: H-10; M-12; L-0; I-0

(4a. Clinical data generated during care delivery; 4b. Electronic sources; 4c.Susceptibility to inaccuracies/ unintended consequences identified 4d. Data collection strategy can be implemented)

<u>Rationale</u>:

- The measure developer concluded that there were no concerns regarding measure logic feasibility based on the feasibility assessment that includes survey results from EHR vendors and hospital staff.

4. Use and Usability: H-8; M-11; L-2; I-0

(Meaningful, understandable, and useful to the intended audiences for 3a. Public Reporting/Accountability and 3b. Quality Improvement)

<u>Rationale</u>:

- This measure is not currently in use but has been proposed to be included in future CMS Hospital Inpatient Quality Reporting Program.

5. Related and Competing Measures

2473 Hospital 30-Day Risk-Standardized Acute Myocardial Infarction (AMI) Mortality eMeasure
• No related or competing measures noted.
Standing Committee Recommendation for Endorsement: Y-21; N-1
6. Public and Member Comment: May 27, 2014- June 25, 2014 Comment Received: • There was one comment received for this measure that raised concerns on the testing and validity of the measure's data. The commenter recommended that the testing of data elements be validated with EHR vendors and healthcare facilities that will report on this measure as data abstraction may be burdensome. Developer's Response: • We have tested the feasibility and validity of the data elements across multiple EHR systems. The results of those analyses support the ability of providers to map and extract these data elements from current EHR software systems automatically, consistently, and accurately. CMS plans to test the electronic submission of the data prior to putting the measure into implementation. Committee's Response: • The Committee acknowledged the developer response and continued to recommend the measure
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

0643 Cardiac Rehabilitation Patient Referral From an Outpatient Setting

Submission | Specifications

Description: Percentage of patients evaluated in an outpatient setting who in the previous 12 months have experienced an acute myocardial infarction or chronic stable angina or who have undergone coronary artery bypass (CABG) surgery, a percutaneous coronary intervention (PCI), cardiac valve surgery (CVS), or cardiac transplantation, who have not already participated in an early outpatient cardiac rehabilitation/secondary prevention program for the qualifying event, and who are referred to an outpatient cardiac rehabilitation/secondary prevention program.

Numerator Statement: Number of patients in an outpatient clinical practice who have had a qualifying event/diagnosis during the previous 12 months, who have been referred to an outpatient Cardiac Rehabilitation/Secondary Prevention (CR/SP) program. (Note: The program may include a traditional CR/SP program based on face-to-face interactions and training sessions or may include other options such as home-based approaches. If alternative CR/SP approaches are used, they should be designed to meet appropriate safety standards and deliver effective, evidence-based services.)

Denominator Statement: Number of patients in an outpatient clinical practice who have had a qualifying cardiovascular event in the previous 12 months and who do not meet any of the criteria listed in the denominator exclusion section below, and who have not participated in an outpatient cardiac rehabilitation program since the qualifying event/diagnosis.

Exclusions: Exceptions criteria require documentation of one or more of the following factors that may prohibit cardiac rehabilitation participation: Patient factors (e.g., patient resides in a long-term nursing care facility). Medical factors (e.g., patient deemed by provider to have a medically unstable, life-threatening condition). Health care system factors (e.g., no cardiac rehabilitation/secondary prevention (CR/SP) program available within 60 min of travel time from the patient's home). The only exclusion criterion for this measure is noted below: Patients already referred to CR from another provider/facility and/or was participating in CR prior to encounter with provider at the current office/facility.(1) 1- When the provider discusses CR/SP referral with the patient, if the patient indicates that he/she has already been referred to CR/SP, then that provider would not be expected to make another referral. However, the provider should document that information in the medical record.

Adjustment/Stratification:

Level of Analysis: Clinician : Group/Practice, Clinician : Individual, Integrated Delivery System, Clinician : Team

Setting of Care: Ambulatory Care : Clinician Office/Clinic

Type of Measure: Process

Data Source: Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Paper Medical Records, Electronic Clinical Data : Registry

Measure Steward: American College of Cardiology

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap, 1c. High Priority)

1a. Evidence: **H-1**; **M-15**; **L-4; I-2**; 1b. Performance Gap: **H-19**; **M-1**; **L-1**; **I-1** 1c. High Priority: **H-16**; **M-4**; **L-1**; **I-1**

Rationale:

- Evidence provided by the developer for the referral measure included six ACC/AHA guidelines for heart attacks with grading of the evidence for referral to cardiac rehab programs and a diagram of the relationship between cardiac rehab programs to health outcomes: lower

0643 Cardiac Rehabilitation Patient Referral From an Outpatient Setting

Mortality/Morbidity, Higher Quality of Life, Risk Factor Modification, Improved Function & Exercise Capacity, Improved Medication Adherence, Reduction in Re-Hospitalization Rates, and Cost Effective Care. The developer also provided the results of the 2009 Cochrane Systematic Review which supported cardiac rehabilitation.

- The developer presents data on current performance from 2011 and 2012 with a mean result of 9.18% (in 20120, demonstrating a significant opportunity for improvement.
- Despite the healthcare priority associated with cardiac rehabilitation programs and the documented benefits, it still remains a vastly underutilized resource, with referral rates in the United States ranging from 6.6 to 53.5% of eligible patients in a state by state analysis, with overall CR usage of 13.9% of patients hospitalized for acute myocardial infarction and 31.0% of patients who underwent coronary artery bypass graft surgery.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-1**; **M-10**; **L-5**; **I-2** 2b. Validity: **H-1**; **M-9**; **L-6**; **I-2**

<u>Rationale</u>:

- The Committee agreed that the measure was reliable with empiric reliability of the measure score at 0.99 for all quartiles, using data from the PINNACLE registry.
- Face validity of the measure score was assessed by 27 members of three ACC or AHA committees. It was determined that 93% of respondents either agree or strongly agree that the outpatient measure can accurately distinguish good and poor quality.
- While the Committee was very supportive of the importance of cardiac rehabilitation for this subset of patients, concern was raised that the specifications of the measure require patients with chronic stable angina to be referred to cardiac rehabilitation annually, which is not supported by the evidence.

3. Feasibility: H-1; M-5; L-11; I-2

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

<u>Rationale</u>:

- The Committee raised concerns regarding feasibility - the measure is not routinely generated and used in healthcare delivery. Additionally, being able to define and categorize the patient population, those that fall between stable and unstable angina was also of concern.

4. Use and Usability: H-2; M-5; L-9; I-2

(4a. Accountability/transparency; and 4b. Improvement – progress demonstrated; and 4c. Benefits outweigh evidence of unintended negative consequences)

<u>Rationale</u>:

- This measure is currently being used used by PQRS and Bridges to Excellence Cardiovascular Practice Recognition Program with plans for public reporting.
- The Committee did voice concerns of transparency as it may be difficult for the clinician to transmit information as a result of various electronic sources being utilized.

5. Related and Competing Measures

0643 Cardiac Rehabilitation Patient Referral From an Outpatient Setting

- This measure directly competes with:
    - 0642 Cardiac Rehabilitation Patient Referral From an Inpatient Setting

  The Committee voiced concern that providers could be penalized by both this measure and by the companion measure (0642), if a patient is referred to cardiac rehabilitation prior to discharge from an inpatient admission but has not enrolled prior to the outpatient visit with the same provider.

Standing Committee Recommendation for Endorsement: Y-8; N-11

Rationale

- During the in-person meeting post call, the Committee did not reach consensus on this measure. It was determined that this measure will be posted for public commenting and at that time, these comments will be reviewed for consideration by the Committee.
- After the post-comment call, the Committee reviewed the comments received and narrowly voted to recommend the measure for continued endorsement. The voting results are below:
    - Yes- 11 ; No- 7

6. Public and Member Comment: May 27, 2014- June 25, 2014

Comments Received:

- NQF received 13 comments for this measure. Several supportive comments were received for the measure, with commenters indicating that the measure is an important companion to measure 0642. Commenters also acknowledged the measure addresses an area of high morbidity, mortality, and healthcare costs. Several comments addressed the specific concerns raised by the Committee
- Additionally, commenters raised some concerns with the measure, they include:
    - Concerns that the denominator was incorrectly written.
    - Concerns with the "complications of the measure", the commenter noted the measure lacks strong evidence to outcome and may be too burdensome for discerning numerator and denominator.
    - One commenter suggested the revision of the measure to capture whether the patient actually received rehabilitation services rather than just the referral as it would emphasize outcome.

Developer's response:

- The denominator description statement is correct as it is currently written. Patients who have had a qualifying inpatient cardiovascular event and who have already been referred to an outpatient CR program, would not be included in the outpatient measure since they would have already been referred from an inpatient setting. The focus of the referral measure from an outpatient setting is to include those patients who have had a qualifying event, but who have not yet been referred to an outpatient CR program.

Committee's Response:

- The Committee reviewed the comments and reiterated concerns about outpatient providers being penalized if an inpatient is referred and attends a cardiac rehabilitation program but this is not documented in the outpatient record.
- Committee members generally agreed that participation is what is important and involves shared accountability with the patient. The Committee supports moving to outcome measures (participation) and would welcome submission of a participation measure for potential endorsement.
- After review of the comments the Committee narrowly voted to recommend the measure for

0643 Cardiac Rehabilitation Patient Referral From an Outpatient Setting
continued endorsement. The voting results are below: o Yes- 11 ; No- 7 • The measure is recommended for endorsement and pursuant with NQF process will be posted for NQF member voting.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals

2452 Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy
Submission | Specifications
Description: Percentage of patients aged 18 years and older for whom PCI is performed who are prescribed optimal medical therapy at discharge **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 **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 **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 **Adjustment/Stratification**: **Level of Analysis:** Clinician : Individual **Setting of Care:** Hospital/Acute Care Facility **Type of Measure**: Composite **Data Source**: Electronic Clinical Data : Registry **Measure Steward**: American College of Cardiology
STANDING COMMITTEE MEETING [04/21/2014—4/22/2014] **1. Importance to Measure and Report: <u>The measure meets the Importance criteria</u>** (1a. Evidence, 1b. Performance Gap, 1c. High Priority) 1a. Evidence: **H-13**; **M-7**; **L-1**; **I-0; IE-0**; 1b. Performance Gap: **H-8**; **M-13**; **L-1**; **I-0;** 1c. Impact: **H-18**; **M-4**; **L-0**; **I-0** <u>Rationale</u>: • The Committee agreed that there was strong evidence to support the use of aspirin and anti-platelet agents to reduce the risk of clot formation in the stent and statins as secondary prevention for CAD. • Registry data for 2011-2012 found the median hospital performance (1.2 million patients in 1,386 hospitals) was 88.6%.

2452 Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy

- In 2011, PCI resulted in 3.2 day length of stay (mean); more than $72,000 in hospital charges (mean); and 1.2% mortality rate, demonstrating a high priority.

2. Scientific Acceptability of Measure Properties: <u>The measure meets the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-3**; **M-13**; **L-3**; **I-2** 2b. Validity: **H-2**; **M-17**; **L-0**; **I-0**

<u>Rationale</u>:

- The Committee determined that the measure specifications were precise, noting that all codes necessary to calculate the measure were present and the specifications were consistent with the evidence presented.
- Reliability testing of the measure score was performed using correlation of random split halves of the participating operators. The correlation coefficient of 0.82.
- No empiric testing of validity was performed.
- Face validity was assessed by content experts of three ACC and/or AHA committees. Of 16 committee members, 87.5% of respondents either agree or strongly agree that this measure provides an accurate reflection of quality and can be used to distinguish good and poor quality.

3. Feasibility: H-18; M-4; L-0; I-0

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

<u>Rationale</u>:

- The Committee acknowledged that the measure is currently in use and the data is routinely generated through care delivery and captured in electronic sources.
- The Committee expressed concern that although this data can be abstracted, there are fess associated with participating in this registry (ranging from $2900-$50,000) which creates an undue burden on physicians/institutions.

4. Use and Usability: H-19; M-3; L-0; I-0

(4a. Accountability/transparency; and 4b. Improvement – progress demonstrated; and 4c. Benefits outweigh evidence of unintended negative consequences)

<u>Rationale</u>:

- This measure is currently used in the Blue Distinction Centers for Cardiac Care program, a national designation program that recognizes hospitals that demonstrate expertise in delivering quality specialty care, safely and effectively.

5. Related and Competing Measures

- This measure directly competes with:
    - 0964 Therapy with aspirin, P2Y12 inhibitor, and statin at discharge following PCI in eligible patients.

  The only difference in specifications is that this clinician-level measure has additional exceptions for medical reasons, patient reasons and system reasons. Committee member also noted that attribution may be an issue as it is not clear how often the discharge medications are prescribed by the operator doing the PCI, rather than another cardiologist or primary provider. Committee members were divided on whether to include the clinician-level of analysis in measure 0964 rather than having a separate measure. The need for complete harmonization was emphasized.

Standing Committee Recommendation for Endorsement: Y-11; **N-11**

2452 Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy

Rationale

- During the in-person meeting post call, the Committee did not reach consensus on this measure. It was determined that this measure will be posted for public commenting and at that time, these comments will be reviewed for consideration by the Committee.
- After the post-comment call, the Committee reviewed and discussed the comments receive and voted to recommend this measure for endorsement. The voting results are below:
    - Yes- 16 ; No- 2

6. Public and Member Comment: May 27, 2014- June 25, 2014

Comments Received:

- Comments received for this measure addressed the harmonization of medication in related measures (measures 2452 and 2379), specifically drugs for oral anti-platelet medications; and data collection for adherence to medication. Additionally, a commenter suggested revising the process measure to capture adherence rather than assessing if the medication was prescribed. They noted it would help to enhance feasibility of pharmacy claims to be used in assessing P2Y12 agent and statin adherence.

Committee's Response:

- The Committee agreed that adherence measures are important. New measure *#2379 Adherence to Anti-platelet Therapy after Stent Implementation* measures adherence for P2Y12 agents. NQF endorsed *measure # 0543 Adherence to Statin Therapy for Individuals with Coronary Artery Disease* addresses adherence to statins in this population. The biggest difficulty is with aspirin which would not be captured.
- After a review of the comments, the committee voted for endorsement of the measure. The voting results are below:
    - Yes- 16 ; No- 2
- The measure is recommended for endorsement and pursuant with NQF process will be posted for NQF member voting.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

Measures Not Recommended

0286 Aspirin at Arrival

Submission | Specifications

Description: Percentage of emergency department acute myocardial infarction (AMI) patients or chest pain patients (with Probable Cardiac Chest Pain) without aspirin contraindications who received aspirin within 24 hours before ED arrival or prior to transfer.

Numerator Statement: Emergency Department AMI or Chest Pain patients (with Probable Cardiac Chest Pain) who received aspirin within 24 hours before ED arrival or prior to transfer

Denominator Statement: Emergency Department AMI or Chest Pain patients (with Probable Cardiac Chest Pain) without aspirin contraindications

Included Populations:

• An E/M Code for emergency department encounter as defined in Appendix A, Table 1.0, and

• Patients discharged/transferred to a short term general hospital for inpatient care, or to a Federal

0286 Aspirin at Arrival

healthcare facility, and
• An ICD-9-CM Principal Diagnosis Code for AMI as defined in Appendix A, OP Table 1.1 or an ICD-9-CM Principal or Other Diagnosis Codes for Angina, Acute Coronary Syndrome, or Chest Pain as defined in Appendix A, OP Table 1.1a with Probable Cardiac Chest Pain
Excluded Populations:
•Patients less than 18 years of age
•Patients with a documented Reason for No Aspirin on Arrival
Data Elements:
•Birthdate
•Discharge Code
•E/M Code
•ICD-9-CM Other Diagnosis Codes
•ICD-9-CM Principal Diagnosis Code
•Outpatient Encounter Date
•Probable Cardiac Chest Pain
•Reason for No Aspirin on Arrival
Exclusions: Excluded Populations:
- Patients less than 18 years of age
- Patients with a documented Reason for No Aspirin on Arrival

Adjustment/Stratification: None
Level of Analysis: Facility, Population : National
Setting of Care: Hospital/Acute Care Facility
Type of Measure: Process
Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Paper Medical Records
Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]
1. Importance to Measure and Report: <u>The measure does not meet the Importance criteria</u>
(1a. Evidence: 1b. Performance Gap, 1c. High Priority)
1a. Evidence: **H-15**; **M-6**; **L-0; IE-0; I-0**; 1b. Performance Gap: **H-2**; **M-7**; **L-13**; **I-0** 1c. High Priority: **Y-X**; **N-X;**
<u>Rationale</u>:

- Evidence provided by the developer diagrams the relationship of aspirin at arrival to reduction of adverse outcomes based on the ACC/AHA 2012 and 2013 guidelines, class 1, level A recommendations. The developers presented five RCTs and two meta-analysis for unstable angina and Non-STEMI as well as two RCTs for STEMI. The Committee acknowledged the evidence provided to be sufficient.
- The measure currently has a national average of 96.4% adherence. Even at the 25th percentile, the measure is at 100%. At the 10th percentile, the measure is at 87% and at the 5th percentile the measure is at 75%. Data on disparities showed adherence for Whites, African Americans, and Hispanics at 95% and higher.
- The Committee agreed that although the measure's performance has been very high, it is topped out with a minimal performance gap in of care.

0286 Aspirin at Arrival

2. Scientific Acceptability of Measure Properties:

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-X**; **M-X**; **L-X**; **I-X** 2b. Validity: **H-X**; **M-X**; **L-X**; **I-X**

Rationale:

- N/A

3. Feasibility: H-X; M-X; L-X; I-X

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

Rationale:

- N/A

4. Use and Usability: H-X; M-X; L-X; I-X

(4a. Accountability/transparency; and 4b. Improvement – progress demonstrated; and 4c. Benefits outweigh evidence of unintended negative consequences)

Rationale:

- N/A

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-X**; **N-X**

Rationale:

- The Committee did not recommend this measure for endorsement since it did not pass importance, which is a must past criteria.

6. Public and Member Comment: May 27, 2014- June 25, 2014

There was one comment received for this measure:

- The commenter suggested that there be an alternative to the removal of NQF endorsement for "topped out" measures. The commenter highlighted there may instances where a previously endorsed NQF measure is still needed and in use and removal of the endorsement gives the impression that the measure is no longer credible, reliable or lacks evidence when that may not be the case.

NQF response:

- In 2011 NQF establish the "inactive endorsement with reserve status" for measures that meet all other criteria except "1B. Opportunity for Improvement" (hyperlink: here).

Committee response:

- The Committee considered the option of reserve status for this measure but ultimately decided not to recommend the Reserve status option. After review of this comment the Committee further noted that they had concerns about the reliability of of capturing the 11 required data elements and specifically identifying patients with "probable chest pain". The developers indicated that they are in the process of re-specifying the measure for EHRs and again noted difficulty with capturing "probable cardiac chest pain." Now that the measure has reached high levels of performance, the Committee did not think the the challenges with abstracting the data were outweighed by the benefit and decided the measure did not qualify for Reserve status.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

0286 Aspirin at Arrival

9. Appeals

0289 Median Time to ECG

Submission | Specifications

Description: Median time from emergency department arrival to ECG (performed in the ED prior to transfer) for acute myocardial infarction (AMI) or Chest Pain patients (with

Probable Cardiac Chest Pain).

Numerator Statement: Continuous Variable Statement:

Time (in minutes) from emergency department arrival to ECG (performed in the ED prior to transfer) for acute myocardial infarction (AMI) or Chest Pain patients (with Probable Cardiac Chest Pain)

Included Populations:

• ICD-9-CM Principal or Other Diagnosis Code for AMI as defined in Appendix A1, OP Table 6.1 or an ICD-9-CM Principal or Other Diagnosis Code for Angina, Acute Coronary Syndrome, or Chest Pain as defined in Appendix A1, OP Table 6.1a, and

• E/M Code for emergency department encounter as defined in Appendix A1, OP Table 1.0a, and

• Patients receiving an ECG as defined in the Appendix A1, and

• Patients discharged/transferred to a short term general hospital for inpatient care, to a Federal healthcare facility, or to a Critical Access Hospital.

Excluded Populations:

Patients less than 18 years of age

Denominator Statement: Continuous Variable Statement: Time (in minutes) from emergency department arrival to ECG (performed in the ED prior to transfer) for AMI or Chest Pain patients (with Probable Cardiac Chest Pain).

Included Populations:

•An E/M Code for emergency department encounter as defined in Appendix A, OP Table 1.0, and

•Patients discharged/transferred to a short term general hospital for inpatient care, or to a Federal healthcare facility, and

•An ICD-9-CM Principal Diagnosis Code for AMI as defined in Appendix A, OP Table 1.1 or an ICD-9-CM Principal or Other Diagnosis Codes for Angina, Acute Coronary Syndrome, or Chest Pain as defined in Appendix A, OP Table 1.1a, and

•Patients receiving an ECG

Excluded Populations:

•Patients less than 18 years of age

Data Elements:

•Arrival Time

•Birthdate

•Discharge Code

•E/M Code

•ECG

•ECG Date

•ECG Time

•ICD-9-CM Other Diagnosis Codes

•ICD-9-CM Principal Diagnosis Code

•Outpatient Encounter Date

0289 Median Time to ECG

•Probable Cardiac Chest Pain

Exclusions: • Patients LESS THAN 18 years of age

Adjustment/Stratification: None

Level of Analysis: Facility, Population : National

Setting of Care: Hospital/Acute Care Facility

Type of Measure: Efficiency

Data Source: Administrative claims, Electronic Clinical Data, Electronic Clinical Data : Electronic Health Record, Paper Medical Records

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: <u>The measure does not meet the Importance criteria</u>

(1a. Evidence: 1b. Performance Gap, 1c. High Priority)

1a. Evidence: **H-0**; **M-2**; **L-12; I-1; IE-7; I-X**; 1b. Performance Gap: **H-X**; **M-X**; **L-X**; **I-X** 1c. High Priority: **Y-X**; **N-X;**

<u>Rationale</u>:

- The developers presented a systemic review based on the ACC/AHA guidelines that shows decreased in time to ECG can lead to rapid identification which can increase reperfusion earlier, if indicated. Specific health outcomes were not included.
- The Committee agreed the evidence provided was not sufficient for the importance criteria. The evidence provided did not link decrease in time to ECG directly to improved outcome. Committee members also questioned the use of this process measure given that there are already outcome measures available.
- Committee members were unclear as to why the whole population was included based on expert evidence even though there is only good evidence for the STEMI population.
- Additionally, AMIs account for 10-15% of chest pain, 1/3 of which are STEMI. There were concerns that by including patient's age 18 or greater in the denominator, it could potentially lead to diversion of resources to younger patients who are unlikely to have STEMI, as STEMI is more common in older patients.

2. Scientific Acceptability of Measure Properties:

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-X**; **M-X**; **L-X**; **I-X** 2b. Validity: **H-X**; **M-X**; **L-X**; **I-X**

<u>Rationale</u>:

- N/A

3. Feasibility: H-X; M-X; L-X; I-X

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

<u>Rationale</u>:

- N/A

4. Use and Usability: H-X; M-X; L-X; I-X

0289 Median Time to ECG

(4a. Accountability/transparency; and 4b. Improvement – progress demonstrated; and 4c. Benefits outweigh evidence of unintended negative consequences)

Rationale:

- N/A

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Y-X**; **N-X**

Rationale:

- The Committee did not recommend this measure for endorsement since it did not pass importance, which is a must past criteria.

6. Public and Member Comment: May 27, 2014- June 25, 2014

There were no public or member comments received for this measure.

7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X

8. Board of Directors Vote: Y-X; N-X

9. Appeals

0521 Heart Failure Symptoms Assessed and Addressed

Submission | Specifications

Description: Percentage of home health episodes of care during which patients with heart failure were assessed for symptoms of heart failure, and appropriate actions were taken when the patient exhibited symptoms of heart failure

Numerator Statement: Number of home health episodes of care during which patients with heart failure were assessed for symptoms of heart failure and appropriate actions were taken when the patient exhibited symptoms of heart failure.

Denominator Statement: Number of home health episodes of care ending with a discharge or transfer to inpatient facility during the reporting period for patients with a diagnosis of heart failure, other than those covered by generic or measure-specific exclusions.

Exclusions: Episodes in which the patient did not have a diagnosis of heart failure and was not assessed to have symptoms of heart failure since the last OASIS assessment. Episodes ending in patient death.

Adjustment/Stratification: None

Level of Analysis: Facility

Setting of Care: Home Health

Type of Measure: Process

Data Source: Electronic Clinical Data

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING [04/21/2014—4/22/2014]

1. Importance to Measure and Report: The measure does not meet the Importance criteria

(1a. Evidence: 1b. Performance Gap, 1c. High Priority)

1a. Evidence: **H-0**; **M-4**; **L-9; I-1; IE-6; I-X**; 1b. Performance Gap: **H-X**; **M-X**; **L-X**; **I-X** 1c. High Priority: **Y-X**; **N-X;**

Rationale:

- Evidence provided by the developer included a systematic review that assessed heart failure

0521 Heart Failure Symptoms Assessed and Addressed
symptoms and appropriate follow-up care to influence health outcomes for utilization. The developers presented guidelines from the Heart Failure Society of America specific to patient and family education for self-care (Grade B) and recognition of heart failure symptoms and when to call the provider (Grade B). The developer did not include guidelines for clinician assessment of heart failure symptoms and no QQC was included. • The Committee acknowledged the lack of evidence with the measure, as there is no evidence that performing the measure leads to improved outcomes. As such, the Committee agreed the measure merited a rating of low for evidence. • Although Committee members agreed that a home health heart failure evaluation is important, the Committee members expressed concerns that assessment alone is not linked to improved outcomes.
2. Scientific Acceptability of Measure Properties: (2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity) 2a. Reliability: **H-X**; **M-X**; **L-X**; **I-X** 2b. Validity: **H-X**; **M-X**; **L-X**; **I-X** Rationale: • N/A
3. Feasibility: H-X; M-X; L-X; I-X *(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)* Rationale: • N/A
4. Use and Usability: H-X; M-X; L-X; I-X *(4a. Accountability/transparency; and 4b. Improvement – progress demonstrated; and 4c. Benefits outweigh evidence of unintended negative consequences)* Rationale: • N/A
5. Related and Competing Measures • No related or competing measures noted.
Standing Committee Recommendation for Endorsement: **Y-X**; **N-X** Rationale: • The Committee did not recommend this measure for endorsement since it did not pass importance, which is a must past criteria.
6. Public and Member Comment: May 27, 2014- June 25, 2014 There were no public or member comments received for this measure.
7. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X; A-X
8. Board of Directors Vote: Y-X; N-X
9. Appeals