

NATIONAL QUALITY FORUM

SURGERY ENDORSEMENT MAINTENANCE 2010 STEERING COMMITTEE MEETING

February 28-March 1, 2011

Committee Members Present: Arden Morris, MD, MPH, FACS (Co-chair), Ann Arbor Veterans Affairs Medical Center; Nasim Afsar-manesh, MD, UCLA Medical Center; James Carpenter, MD, University of Michigan; Robert Cima, MD, MA, FACS, FASCRS, Mayo Clinic; Curtis Collins, PharmD, MS, BCPS AQ-ID, University of Michigan Health System; Peter Dillon, MD, MSc, Penn State Hershey Medical Center; Richard Dutton, MD, MBA, Anesthesia Quality Institute; Steven Findlay, MPH, Consumers Union; Paula Graling, DNP, RN, CNS, CNOR, INOVA Fairfax Hospital; Vivienne Halpern, MD, FACS, Carl T Hayden VA Medical Center; Eileen Kennedy, CPA, SPHR, Pepco Holdings, Inc.; Ruth Kleinpell, PhD, RN, FAAN, Rush University Medical Center; John Morton, MD, MPH, FACS, Stanford University; Dennis Rivenburgh, MS, ATC, PA-C, St. Anthony's Primary Care; Terry Rogers, MD, The Foundation for Health Care Quality; Christopher Saigal, MD, MPH, FACS, UCLA; Nicholas Sears, MD, MedAssets, Inc.; Allan Siperstein, MD, Cleveland Clinic; Renae Stafford, MD, MPH, FACS, University of North Carolina-Chapel Hill; Connie Steed, MSN, RN, CIC, Greenville Hospital System University Medical Center; Carol Wilhoit, MD, MS, Blue Cross Blue Shield of Illinois; Christine Zambricki, CRNA, MS, FAAN, American Association of Nurse Anesthetists.

NQF Staff Present: Helen Burstin, MD, MPH, Senior Vice President of Performance Measures; Melinda Murphy, RN, MS, NE-BC, Senior Director; Alexis Forman, MPH, Project Manager, Jessica Weber, MPH, Research Analyst.

Others Present: Kristie Baus, Centers for Medicare & Medicaid Services; John Bott, Agency for Healthcare Research and Quality; Dale Bratzler, Oklahoma Foundation for Medical Quality; Caitlin Burley, American College of Surgeons; Sheryl Davies, Stanford University; Harriet Gammon, The Joint Commission; Jeffrey Geppert, Battelle Memorial Institute; Jane Han, The Society of Thoracic Surgeons; Wanda Johnson, Oklahoma Foundation for Medical Quality; Victoria Lynch, Oklahoma Foundation for Medical Quality; Richard Prager, The Society of Thoracic Surgeons; Jessica Riehle, Ingenix; Patrick Romano, University of California-Davis; Elvira Ryan, The Joint Commission; David Shahian, The Society of Thoracic Surgeons; Sharon Sprenger, The Joint Commission

The full transcripts and audio recordings from the meeting can be found [here](#).

MEETING PROCESS

Dr. Morris (co-chair) welcomed the Steering Committee and thanked them for their continued participation. The Steering Committee then introduced themselves and stated any conflicts of interest. The purpose of the meeting was to:

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- Review and evaluate the 30 submitted measures according to NQF criteria to determine if suitable to recommend for endorsement as voluntary consensus standards;
- Review related and competing measures to facilitate harmonization and select the best measure from among competing measures; and
- Identify gaps in performance measures for the care of the surgical patient and surgical procedures

Dr. Morris then reviewed the agenda items with the Committee before the meeting began. After the Steering Committee introductions and disclosures of interest, project staff provided background information on NQF and the Consensus Development Process (CDP). Ms. Murphy provided an overview of the current Surgery project, reviewed the expected roles of the Steering Committee members, and reviewed NQF's Measure Evaluation Criteria.

Following introductions of the participants via phone, and a brief introduction of the measures by the measure developers, the meeting was then turned over to the Steering Committee co-chair, Arden Morris, for the formal activity of the Steering Committee.

The [measures](#) were grouped into several broad topic areas:

- Cardiac-CABG
- Cardiac-CABG: Valve Replacement/Repair
- Esophageal Resection and Transfusion
- Cardiac-CABG and Prophylaxis

Each measure was introduced by a Committee member who was asked to briefly describe the measure and summarize the preliminary Committee evaluations with particular attention to areas of concern or differences in the ratings. This introduction was followed by discussion by the entire Committee. After discussion, the Committee voted on the ratings for each of the major criteria (*Importance to Measure and Report, Scientific Acceptability of Measure Properties, Usability, and Feasibility*) and a recommendation for endorsement.

At the start of both days of the meeting, measure developers were invited to provide a brief introduction of the measure(s) that were being reviewed that day. Measure developers were available to respond to the Committee's questions during the evaluation of the measures.

At the end of the second day, the Committee briefly reviewed the phase I table of related and competing measures. Ms. Murphy indicated that project staff would provide an updated table to the Committee given that some measures were not recommended for NQF endorsement by the Committee. Dr. Morris asked the Committee to review the updated table and be prepared to discuss harmonization and 'best-in-class' on an upcoming meeting.

Dr. Morris asked the Committee to begin brainstorming about topic areas in which further measure development would be useful for public reporting and quality improvement. The Committee will begin the discussion of gaps in measurement at the phase II in-person meeting in May 2011. Prior to the May meeting, staff will provide the Committee with the current list of NQF-endorsed® surgical measures.

On each meeting day, NQF Member and Public Comment periods occurred after each group of measures were discussed. At the end of the second day, a representative from the Centers for Medicare

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& Medicaid Services suggested NQF provide a measure library for measures that are classified as ‘topped out’ but remain scientifically valid.

EVALUATION OF SURGERY ENDORSEMENT MAINTENANCE 2010 MEASURES

The Surgery Steering Committee [evaluated 30 measures](#) and made preliminary recommendations for 20 measures:

- **0113** Participation in a systematic database for cardiac surgery
- **0114** Risk-adjusted post-operative renal failure
- **0115** Risk-adjusted surgical re-exploration
- **0129** Risk-adjusted prolonged intubation (ventilation)
- **0131** Risk-adjusted stroke/cerebrovascular accident
- **0134** Use of internal mammary artery (IMA) in coronary artery bypass graft (CABG)
- **0119** Risk-adjusted operative mortality for CABG
- **0120** Risk-adjusted operative mortality for aortic valve replacement (AVR)
- **0121** Risk-adjusted operative mortality for mitral valve (MV) replacement
- **0122** Risk-adjusted operative mortality MV replacement + CABG surgery
- **0123** Risk-adjusted operative mortality for aortic valve replacement (AVR) + CABG surgery
- **1501** Risk-adjusted operative mortality for mitral valve (MV) repair
- **1502** Risk-adjusted operative mortality for MV repair + CABG surgery
- **0360** Esophageal resection mortality rate (IQI 8)
- **0361** Esophageal resection volume (IQI 1)
- **0116** Anti-platelet medication at discharge
- **0118** Anti-lipid treatment discharge
- **0130** Risk-adjusted deep sterna wound infection rate
- **0300** Cardiac patients with controlled 6 am postoperative serum glucose
- **0218** Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time

Recommendations for all measures requiring measure developers to respond to the Committee’s suggested modifications are preliminary. Following the review of the responses from the measure developers, the Committee will vote on final recommendation for NQF endorsement for measures in which evaluation of related and competing issues are not applicable. After review of related measures for harmonization issues, the Steering Committee may make its recommendations conditional on changes needed for measure harmonization.

Overarching Issues

During the Steering Committee’s discussion of the measures, several overarching issues emerged and were discussed. These issues factored into the Committee’s ratings and recommendations for multiple measures.

Clarity of Measure Specifications

Steering Committee members requested clarification of a number of measures’ specifications related to how the algorithms were calculated, inconsistencies in language and the lack of complete specifications cited within the measure submission form. Attached documents and appendices were

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considered useful in evaluating the measures, but the Steering Committee urged measure developers to include all pertinent information within the submission forms to provide clarity to the public.

Disparities

The Committee noted measure submission forms provided negligible information on disparities. In response, the Steering Committee requested measures developers to submit additional information.

Impact on Quality

The Committee suggested measure developers provide detail on how their currently NQF-endorsed® measure have impacted quality since its initial endorsement. The Committee specified that this is vital information when deciding if the measure should maintain endorsement.

Participation in Registries

The Committee discussed use of proprietary registry data. It was noted that endorsing a measure that uses registry data requires participation in that particular registry. Endorsing a measure that requires use of an organization's database is the equivalent of picking a 'winner.' Selecting a particular registry could also lead to a significant burden if those who desire to apply the measure to data outside the registry do not have detail required to implement the risk model or otherwise implement the measure. More acceptable solutions are to include fully detailed specifications will allow abstraction from any database that contains the requisite elements including non-proprietary or generic databases. This, of course, would require standardized data elements.

Public Reporting

The NQF endorsement criteria specify that measures must be used for quality improvement and public reporting. The Committee noted that measure submission forms should include public reporting plans or be required to submit them prior to endorsement decisions.

Relationship to Outcomes

The Committee preferred measures that provided clear and direct evidence of the measure's proximity to an improved outcome. The importance of updated citations and evidence was highlighted for maintenance measures.

Topped Out Measures

The Committee debated what defined "topped out" measures. There was concern that not endorsing a maintenance measure with a small performance gap may lead to decreased compliance with the measure. Additional information was requested from measure developers regarding gaps in care.

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Measures and Evaluations

Following are brief descriptions of the 30 measures reviewed, along with the Steering Committee's votes and rationale. Questions to and answers from the measure developers are also included.

Following review, seven measures submitted by The Joint Commission were withdrawn from the project.

Cardiac-CABG

0113 Participation in a systematic database for cardiac surgery (Prelim pending developer response).	6
0114 Risk-adjusted post-operative renal failure (Prelim pending developer response)	7
0115 Risk-adjusted surgical re-exploration (Recommended)	8
0129 Risk-adjusted prolonged intubation (ventilation) (Recommended-Conditional)	9
0131 Risk-adjusted stroke/cerebrovascular accident (Recommended-Conditional)	9
0134 Use of internal mammary artery (IMA) in coronary artery bypass graft (CABG) (Recommended-Conditional)	10
0119 Risk-adjusted operative mortality for CABG (Recommended)	11

Cardiac-CABG: Valve Replacement/Repair

0120 Risk-adjusted operative mortality for aortic valve replacement (AVR) (Recommended)	12
0121 Risk-adjusted operative mortality for mitral valve (MV) replacement (Recommended)	13
0122 Risk-adjusted operative mortality MV replacement + CABG surgery (Recommended)	13
0123 Risk-adjusted operative mortality for aortic valve replacement (AVR) + CABG surgery (Recommended)	14
1501 Risk-adjusted operative mortality for mitral valve (MV) repair (Recommended)	15
1502 Risk-adjusted operative mortality for MV repair + CABG surgery (Recommended)	16
0124 Surgical volume-a. isolated coronary artery bypass graft (CABG) surgery, b. valve surgery, c. CABG+valve surgery	16

Esophageal Resection and Transfusion

0360 Esophageal resection mortality rate (paired with 0361) (Recommended)	17
0361 Esophageal resection volume (IQI 1) (paired with 0360) (Recommended)	18

Cardiac-CABG and Prophylaxis

0116 Anti-platelet medication at discharge (Recommended)	18
0118 Anti-lipid treatment discharge (Recommended)	19
1479 Patient(s) 18 years of age and older on lipid-lowering medication at admission or within seven days of discharge of an isolated CABG procedure	20
0130 Risk-adjusted deep sternal wound infection rate (Recommended)	21
0300 Cardiac patients with controlled 6 am postoperative serum glucose (Prelim pending developer response)	21
0218 Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time (Recommended)	22
0217 Surgery patients with recommended venous thromboembolism (VTE) prophylaxis ordered	24

Esophageal Resection and Transfusion

1526 Transfusion consent	24
1532 Plasma transfusion indication	25

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1539 Platelet transfusion indication.....	26
1527 RBC transfusion indication.....	26
1541 Blood administration documentation.....	27
1542 Preoperative anemia screening	28
1547 Preoperative blood type testing and antibody screening	28

LEGEND: Y-‘Yes’; N-‘No’; A-‘Abstain’; C-Completely; P-Partially; Minimally; N-Not at all

<p>0113 Participation in a systematic database for cardiac surgery</p> <p>Description: Participation in a multicenter data collection and feedback program that provides benchmarking relative to peers and uses process and outcome measures.</p> <p>Numerator Statement: Does the facility participate in a clinical database with broad state, regional, or national representation, that provides regular performance reports based on benchmarked data? (y/n)</p> <p>Denominator Statement: N/A.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Structure/management</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional Y-11; N-11; A-0=Meets NQF’s evaluation criteria. Final recommendation for endorsement is pending evaluation of related and competing measures.</p> <p>Rationale: Pending developer’s response to the Committee’s suggested modifications.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> 1. <u>De.2 Measure Description:</u> Please provide a more detailed description that addresses requirement for participation in the STS database/registry. 2. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities. 3. <u>2a.1 Numerator Statement:</u> The statement does not indicate participation in the STS database is required. 4. <u>2a.3 Numerator Details:</u> Are hospitals required to report 100% of cases? Please define what qualifies as participation in the registry. <p>Developer Response:</p> <ol style="list-style-type: none"> 1. Participation in the STS Database is not required. Measure description will read: Participation in a clinical database with broad state, regional, or national representation, that provides regular performance reports based on benchmarked data 2. STS is not sure how to provide disparities data on this measure. If NQF is interested, STS can provide the number of STS Participants who report data on at least one patient in each subgroup (e.g., male, female, white, etc), but this information would look very similar to the data already provided in the measure form 3. Participation in the STS Database is not required. Numerator statement has been modified to read: Whether or not the facility participates in a clinical database with broad state, regional, or national representation, that provides regular performance reports based on benchmarked data. 4. Numerator Details: Participation in a clinical database with broad state, regional, or national representation, that provides regular performance reports based on benchmarked data. For example, as described in the measure form, participation in the STS Adult Cardiac Surgery Database is initiated by the surgeons and/or hospital and is defined as quarterly submission of 100% of cases via an approved software system to the Duke Clinical Research Institute. STS’s audit cross-checks submitted cases against hospital logs to assure all cases have been captured.
<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: Y-18; N-4 (1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</p> <p>Rationale: Participation in the database for benchmarking and quality improvement has been shown to improve outcomes and enhance patient safety. Although 90 percent of centers already report, the Committee felt that participation should be closer to 100 percent.</p>
<p>2. Scientific Acceptability of Measure Properties: C-4; P-15; M-1; N-2 (2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</p> <p>Rationale: Participation in the registry was not defined. The Committee questioned if submitting one case fulfill the criteria requirement or is an organization required to submit 100 percent of their cases in order to meet the requirement.</p>
<p>3. Usability: C-9; P-13; M-0; N-0</p>

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<p><i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale: The Committee questioned if the measure remains useful with the addition of other indicators that are dependent upon participation.</p>
<p>4. Feasibility: <u>C-17; P-5; M-0; N-0</u></p> <p><i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale: All data elements are available electronically.</p>

<p>0114 Risk-adjusted post-operative renal failure</p> <p>Description: Percent of patients undergoing isolated CABG (without pre-existing renal failure) who develop post-operative renal failure or require dialysis.</p> <p>Numerator Statement: Number of patients undergoing isolated CABG who develop post-operative renal failure or require dialysis.</p> <p>Denominator Statement: All patients undergoing isolated CABG.</p> <p>Exclusions: Patients with documented history of renal failure, baseline serum creatinine >2.0; prior renal transplants are not considered pre-operative renal failure unless since transplantation their Cr has been or is >2.0.</p> <p>Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p> <p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-12; N-10; A-0</u></p> <p>Rationale: This is an important metric for benchmarking data on patients undergoing isolated CABG who develop post-operative renal failure or require dialysis.</p> <p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities. <u>2a.1 Numerator Statement:</u> The statement does not indicate participation in the STS database is required. <u>2a.2 Numerator Time Window:</u> Provide the time period in which cases are eligible for inclusion in the numerator. <u>2a.3 Numerator Details:</u> Provide a more detailed definition of renal failure. Consideration should be given to using the RIFLE criteria. <u>2a.8 Denominator Details:</u> Are re-operated patients included? <u>4e.2 Costs to Implement the Measure:</u> The cost of data abstraction needs to be clearer. <p>Developer Response:</p> <ol style="list-style-type: none"> Data on disparities are provided in the form. Participation in the STS Database is not required During the hospitalization for surgery, which includes the entire postoperative period up to discharge, even if over 30 days. STS will use the RIFLE criteria in its analyses and report of the renal failure measure. The renal failure section of the STS Adult Cardiac Surgery Database, v2.73 Training Manual will be harmonized with the risk, injury and failure categories of the RIFLE criteria. For cases entered in the STS Database from July 2011 onward, renal failure rates reported quarterly to STS Database Participants will reflect the RIFLE criteria definition. Please note that due to the specification upgrade schedule for the STS Adult Cardiac Surgery Database, the RIFLE categories of loss and ESKD cannot be captured at this time. STS intends to make these changes during the next specification upgrade scheduled to take place in 2013. <p style="padding-left: 40px;">New numerator details:</p> <p style="padding-left: 80px;">Definition of renal failure/dialysis requirement – Patients with acute renal failure or worsening renal function resulting in one or both of the following:</p> <ul style="list-style-type: none"> – Increase of serum creatinine to ≥ 4.0 or 3x the most recent preoperative creatinine level – New requirement for dialysis postoperatively <ol style="list-style-type: none"> Yes, re-operated patients are included Approximately one FTE per 500 cases <p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-22; N-0</u></p> <p><i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: Patients with post-operative renal failure are a high-risk group.</p> <p>2. Scientific Acceptability of Measure Properties: <u>C-3; P-18; M-1; N-0</u></p> <p><i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f.</i></p>
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<p><i>Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale: Specifications were incomplete. There is no stated numerator time window. Without a specified time period, this becomes open to interpretation by coders. The Committee suggested the developer used the RIFLE criteria when defining renal failure. There was not an exclusion for emergency CABG cases, which are more susceptible to the development of renal failure due to patients being sicker to begin with and the need for blood transfusions.</p>
<p>3. Usability: C-12; P-9; M-0; N-1 <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale: This measure seemed valuable from the quality improvement perspective.</p>
<p>4. Feasibility: C-14; P-8; M-0; N-0 <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale: The cost of data abstraction was not clearly indicated. The developer did not provide the cost of hiring employees to perform data abstraction.</p>

<p>0115 Risk-adjusted surgical re-exploration</p> <p>Description: Percent of patients aged 18 years and older undergoing isolated CABG who require a return to the operating room for bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason.</p> <p>Numerator Statement: Number of patients undergoing isolated CABG who require return to the operating room for mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason.</p> <p>Denominator Statement: All patients undergoing isolated CABG.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: case-mix adjustment. No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional Y-22; N-0; A-0</p> <p>Rationale: This is an important internal metric for cardiothoracic surgery practices to help focus supportive efforts on surgical and anesthesia providers with a high rate of required re-operation.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> 1b.4 <u>Summary of Data on Disparities by Population Group:</u> Please provide data on disparities. 2a.2 <u>Numerator Time Window:</u> Provide the time period in which cases are eligible for inclusion in the numerator. <p>Developer Response:</p> <ol style="list-style-type: none"> 1. Data on disparities are provided in the form. 2. During the hospitalization for surgery, which includes the entire postoperative period up to discharge, even if over 30 days.
<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: Y-22; N-0 <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: Though it is unproven as to whether surgical re-exploration has a direct impact on outcomes; from the patient perspective, an additional surgical procedure is itself an important and adverse outcome.</p>
<p>2. Scientific Acceptability of Measure Properties: C-19; P-3; M-0; N-0 <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale: This is easy to measure accurately. The measure has face validity in that any return to the OR is considered a complication of the surgical procedure. The Committee questioned why the return to the OR was only for cardiac reasons. Evidence indicates that approximately 80 percent of the reasons for an OR return is because of bleeding or graft occlusion. The issue of risk adjustment was discussed. It was indicated that the measure should not be risk adjusted. If the measure is risk-adjusted then it is hard to find out exactly which specific conditions or procedure will lead to an OR return.</p>
<p>3. Usability: C-20; P-2; M-0; N-0 <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale: The measure is meaningful for public reporting and quality improvement. Committee members discussed the potential of 'gaming' to fulfill the requirements of the measure. The Committee recognized there isn't a way to prevent gaming and trusts that gaming will not become an issue.</p>

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4. Feasibility: C-21; P-1; M-0; N-0
 (4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)
Rationale: All data elements are available electronically.

0129 Risk-adjusted prolonged intubation (ventilation)
Description: Percent of patients aged 18 years and older undergoing isolated CABG who require intubation for more than 24 hours.
Numerator Statement: Number of patients undergoing isolated CABG who require intubation > 24 hours.
Denominator Statement: All patients undergoing isolated CABG.
Exclusions: N/A
Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.
Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities
Type of Measure: Outcome
Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73
Measure Steward: Society of Thoracic Surgeons | 633 North Saint Clair Street, Suite 2320 | Chicago | Illinois | 60611

Steering Committee Recommendation for Endorsement: **Conditional** Y-21; N-1; A-0
Rationale: Intubation is linked to morbidity, and an increase in length-of-stay, cost and resource utilization.

If applicable, Conditions/Questions for Developer:

- De.2 Measure Description: Please consider change in time limit to a period that is less than 24 hours
- 1b.4 Summary of Data on Disparities by Population Group: Please provide data on disparities.

Developer Response:

- Considering the increased complexity of current CT patients, a time period significantly less than 24 hrs (e.g. 6 or 12 hours) would not be appropriate as a *routine performance measure*, even though that is achievable in many patients. In some patients, such a measure could result in the adverse unintended consequences of premature extubation, subsequent ventilatory failure, and re-intubation.
- Data on disparities are provided in the form.

If applicable, Questions to the Steering Committee:

1. Importance to Measure and Report: Y-22; N-0
 (1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)
Rationale: Although the measure compliance is above 90 percent, the Committee felt compliance should be closer to 100 percent.

2. Scientific Acceptability of Measure Properties: C-17; P-5; M-0; N-0
 (2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)
Rationale: One potential confounder is the post-CABG patient who is extubatable by clinical criteria but is kept intubated beyond 24 hours due an unrelated unscheduled second surgery the next day. The Committee questioned the developer as to why 24 hours was selected as the standard as opposed to a shorter time period. The literature identifies a range of times, associated with length of stay in ICU and hospital as well as relationship to anesthesia. One study reported that 39 percent of all patients were extubated within 6 hours, 89 percent within 24 hours and 95 percent within 48 hours. Committee members indicated that in their experience the majority of patients are off ventilators sooner than 24 hours.

3. Usability: C-20; P-2; M-0; N-0
 (3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)
Rationale: The measure is meaningful for public reporting and quality improvement.

4. Feasibility: C-20; P-1; M-1; N-0
 (4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)
Rationale: Easily captured and derived from electronic sources.

0131 Risk-adjusted stroke/cerebrovascular accident
Description: Percent of patients aged 18 year and older undergoing isolated CABG (without pre-existing neurologic deficit) who have a postoperative stroke (i.e., any confirmed neurological deficit of abrupt onset caused by a disturbance in blood supply to the brain) that did not resolve within 24 hours.
Numerator Statement: Number of patients undergoing isolated CABG who have a postoperative stroke (i.e., any confirmed neurological deficit of abrupt onset caused by a disturbance in blood supply to the brain) that did not resolve within 24 hours.
Denominator Statement: All patients undergoing isolated CABG.

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<p>Exclusions: Patients with prior CVA.</p> <p>Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-22; N-0; A-0</u></p> <p>Rationale: It is an important clinical complication to publicly report.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> 1. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities. 2. <u>2a.2 Numerator Time Window:</u> Provide the time period in which cases are eligible for inclusion in the numerator. 3. <u>2a.9 Denominator Exclusions:</u> Please reconsider exclusion of patients with prior CVA; suggest this exclusion be removed or rationale for retaining it be provided in more detail. <p>Developer Response:</p> <ol style="list-style-type: none"> 1. Data on disparities are provided in the form. 2. During the hospitalization for surgery, which includes the entire postoperative period up to discharge, even if over 30 days. 3. STS will remove this exclusion. STS adjusts for prior CVA in the STS risk model.
<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-22; N-0</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: Measuring the number of patients whose postoperative stroke was not resolved within 24 hours will provide the opportunity to improve quality of care. With 1.0 as the median, STS data shows an incidence range from 0.6 – 2.1 with 1.2 and 0.8 at the 25th and 75th quartiles respectively. Up to a 13+ percent incidence of stroke has been reported.</p> <p>2. Scientific Acceptability of Measure Properties: <u>C-12; P-10; M-0; N-0</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale: This measure has significant face validity. Because it is a low-incidence event, large numbers are required for effective interpretation. The reproducibility of reporting centers from year to year is low. A center could have an excellent score one year and a bad score the following year. There was concern as to whether this truly represents the care at individual hospitals. The Committee questioned how the exclusion of a prior CVA is calculated. The Committee recommended that patients with a prior CVA should be included to see if prior CVA had worsened as a result of the CABG operation.</p> <p>3. Usability: <u>C-17; P-5; M-0; N-0</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale: Useful as a measure where the data is aggregated nationally. Due to this being a low frequency event, it will be hard to directly apply the results at the provider level or in an individual practice or hospital though it can prove useful as a trigger tool.</p> <p>4. Feasibility: <u>C-18; P-4; M-0; N-0</u> <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale: The Committee was not sure how well automated electronic data (such as ICD-9 codes) can be used to define this measure. Cognitive defects can be subtle, and may require more focused testing that would increase the cost of data collection and complexity of this measure.</p>

<p>0134 Use of internal mammary artery (IMA) in coronary artery bypass graft (CABG)</p> <p>Description: Percentage of patients aged 18 years and older undergoing isolated coronary artery bypass graft (CABG) who received an internal mammary artery (IMA) graft.</p> <p>Numerator Statement: Number of patients undergoing isolated coronary artery bypass graft (CABG) who received an internal mammary artery (IMA) graft.</p> <p>Denominator Statement: All patients undergoing isolated CABG.</p> <p>Exclusions: Cases are removed from the denominator if the patient had a previous CABG prior to the current admission or if IMA was not used and one of the following reasons was provided:</p> <ul style="list-style-type: none"> - The IMA is not a suitable conduit due to size or flow - Subclavian stenosis - Previous cardiac or thoracic surgery - Previous mediastinal radiation
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<p>- Emergent or salvage procedure - No LAD disease</p> <p>Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Process</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-21; N-0; A-0</u>=Meets NQF's evaluation criteria. Final recommendation for endorsement is pending evaluation of related and competing measures.</p> <p>Rationale: This measure is tied to improved outcomes due to high patency rates of the IMA. The current compliance is 95 percent; yet there are still programs whose compliance rate is 80 percent, in which variation exists.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> 1. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities. 2. <u>2a.9 Denominator Exclusions:</u> Please remove "the IMA is not a suitable conduit due to size or flow" from the exclusions. <p>Developer Response:</p> <ol style="list-style-type: none"> 1. Data on disparities are provided in the form. 2. STS agreed to this during Steering Committee meeting. The form has been modified to reflect this.
<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-20; N-1</u> (1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</p> <p>Rationale: The literature points to disparities amongst women, with IMA used less often in women. The developer did not provide information or data on disparities related to performance on the measure.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-14; P-7; M-0; N-0</u> (2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</p> <p>Rationale: The exclusion 'IMA not suitable,' can lead to the issue of gaming. This causes apprehension as to who determines if the IMA is not suitable. Currently, there is no criteria that classifies the IMA as suitable. The Committee requested this exclusion be removed.</p>
<p>3. Usability: <u>C-20; P-1; M-0; N-0</u> (3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</p> <p>Rationale: The information obtained is meaningful and useful.</p>
<p>4. Feasibility: <u>C-20; P-1; M-0; N-0</u> (4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</p> <p>Rationale: The information can be derived from electronic sources.</p>

<p>0119 Risk-adjusted operative mortality for CABG</p>
<p>Description: Percent of patients aged 18 years and older undergoing isolated CABG who die, including both 1) all deaths occurring during the hospitalization in which the CABG was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Numerator Statement: Number of patients undergoing isolated CABG who die, both 1) all deaths occurring during the hospitalization in which the CABG was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Denominator Statement: All patients undergoing isolated CABG.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-22; N-0; A-0</u></p> <p>Rationale: Mortality is an important concept to measure and report.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> 1. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities. <p>Developer Response:</p>

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<p>1. Data on disparities are provided in the form.</p>
<p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-21; N-1</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: Understanding how to prevent mortality will provide better clinical outcomes. Data from the STS database reviewed and published reports a 30 day operative death rate of 3.05% and suggests that such site specific data can be useful to evaluate care quality and focus on areas for improvement. The developer was asked to provide data regarding disparities that will be considered prior to final action by the committee</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-17; P-5; M-0; N-0</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale: The Committee discussed the risk-adjusted mortality rate and if it identified whether patients who should be doing well are actually doing well within institutions. The Committee expressed interest in being able to obtain the volume of surgeries performed in an institution stratified in terms of actual risk for individual patients and whether those patients who, statistically, are expected to survive actually survive. The measure does not consider the volume of the programs.</p>
<p>3. Usability: <u>C-20; P-2; M-0; N-0</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale: The measure is meaningful and useful for public reporting and quality improvement.</p>
<p>4. Feasibility: <u>C-20; P-2; M-0; N-0</u> <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i> Rationale: The data can be derived from electronic sources.</p>

<p>0120 Risk-adjusted operative mortality for aortic valve replacement (AVR)</p>
<p>Description: Percent of patients undergoing aortic valve replacement (AVR) who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Numerator Statement: Number of patients undergoing aortic valve replacement (AVR) who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Denominator Statement: All patients undergoing isolated AVR surgery.</p> <p>Exclusions: N/A.</p> <p>Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-21; N-0; A-0</u></p> <p>Rationale: Aortic valve replacement is a high risk surgery and factors that can improve outcomes can be studied from this measure.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>1. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities.</p> <p>Developer Response:</p> <p>1. Data on disparities are provided in the form.</p>
<p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-20; N-0</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: Important measure for determining the delivery of care in a cardiac program. The evidence of high impact is strong.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-20; P-1; M-0; N-0</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale: Specifications are well defined and the risk adjustment methodology is appropriate and clearly described.</p>
<p>3. Usability: <u>C-20; P-1; M-0; N-0</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing</i></p>

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<p><i>measures)</i></p> <p>Rationale: The measure is straightforward and easy to understand. It is focused on one, clearly defined procedure, and the outcome (mortality) is determined by multiple contributing factors that when identified can be targets of quality improvement initiatives. This measure is currently not being publicly reported; reporting is expected within 12 months.</p>
<p>4. Feasibility: <u>C-21; P-0; M-0; N-0</u> <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale: The data capture process for the database is extensive and well constructed.</p>

<p>0121 Risk-adjusted operative mortality for mitral valve (MV) replacement</p> <p>Description: Percent of patients undergoing MV replacement who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Numerator Statement: Number of patients undergoing MV replacement who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Denominator Statement: All patients undergoing isolated MV replacement surgery.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-21; N-0; A-0</u></p> <p>Rationale: The measure was well defined and constructed providing ability to drill down for information regarding in hospital and post discharge deaths. Having such data at the levels of analysis can help planning toward strategies to prevent mortality and ultimately provide better clinical outcomes</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>1. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities.</p> <p>Developer Response:</p> <p>1. Data on disparities are provided in the form.</p>
<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-21; N-0</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: The procedure is important to measure and report. Having the ability to review organizational performance against that of peers and against oneself over time has been shown to facilitate insights that can result in improvement in risk assessment, patient selection and ultimately outcomes.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-20; P-1; M-0; N-0</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale: The specifications are well defined.</p>
<p>3. Usability: <u>C-21; P-0; M-0; N-0</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale: The measure is straightforward and easy to understand. This measure is currently not being publicly reported; reporting is expected within 12 months.</p>
<p>4. Feasibility: <u>C-21; P-0; M-0; N-0</u> <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale: The data is derived from electronic sources.</p>

<p>0122 Risk-adjusted operative mortality MV replacement + CABG surgery</p> <p>Description: Percent of patients undergoing combined MV replacement and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p>

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<p>Numerator Statement: Number of patients undergoing combined MV replacement and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Denominator Statement: All patients undergoing combined MV replacement + CABG.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-19; N-0; A-0</u></p>
<p>Rationale: Significant procedure in cardiac surgery.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>1. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities.</p> <p>Developer Response:</p> <p>1. Data on disparities are provided in the form.</p>
<p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-19; N-0</u> (1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</p> <p>Rationale: Important measure for the relatively small number of centers that perform this type of surgery given the increasing use in an older population with greater numbers and more severe co-morbid risk factors.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-16; P-3; M-0; N-0</u> (2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</p> <p>Rationale: The measure is precisely specified.</p>
<p>3. Usability: <u>C-16; P-3; M-0; N-0</u> (3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</p> <p>Rationale: The question of whether the measure is useful due to the small number of centers that perform the surgery was discussed and decided in favor of the measure's use. This measure is currently not being publicly reported; reporting is expected within 12 months.</p>
<p>4. Feasibility: <u>C-18; P-1; M-0; N-0</u> (4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</p> <p>Rationale: Audit process is well structured.</p>

<p>0123 Risk-adjusted operative mortality for aortic valve replacement (AVR) + CABG surgery</p>
<p>Description: Percent of patients undergoing combined AVR and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Numerator Statement: Number of patients undergoing combined AVR and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Denominator Statement: All patients undergoing combined AVR + CABG.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p>
<p>Steering Committee Recommendation for Endorsement: Conditional Conditional <u>Y-21; N-0; A-0</u></p>
<p>Rationale: The performance gap varies by facility.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>1. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities.</p> <p>Developer Response:</p> <p>1. Data on disparities are provided in the form.</p>

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<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-20; N-0</u> (1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence) Rationale: It is a critical outcome that varies in performance.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-18; P-2; M-0; N-0</u> (2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities) Rationale: A higher risk population is undergoing this surgery; the case mix risk model is appropriate for the population. The reliability and validity testing will allow organizations to provide consistent and credible results</p>
<p>3. Usability: <u>C19-; P-2; M-0; N-0</u> (3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures) Rationale: This measure is currently not being publicly reported; strategy for reporting puts CABG procedures out first with other to follow. This and related measures are expected to be publicly reported within 24-36 months.</p>
<p>4. Feasibility: <u>C-21; P-0; M-0; N-0</u> (4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented) Rationale: The information can be derived from electronic sources.</p>

<p>1501 Risk-adjusted operative mortality for mitral valve (MV) repair</p> <p>Description: Percent of patients undergoing MV repair who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Numerator Statement: Number of patients undergoing MV repair who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.</p> <p>Denominator Statement: All patients undergoing isolated MV repair surgery.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Outcome</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p> <p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-21; N-0; A-0</u></p> <p>Rationale: The measure provides an additive value to measures on cardiac surgical care.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> <u>De.2 Measure Description & 2a.4 Denominator Statement:</u> Please clarify that the measure applies to open chest procedures. <u>1b.4 Summary of Data on Disparities by Population Group:</u> Please provide data on disparities. <p>Developer Response:</p> <ol style="list-style-type: none"> The measure applies to the procedure of MV repair, regardless of approach. Data on disparities are provided in the form.
<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-21; N-0</u> (1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence) Rationale: This procedure is important to measure and report.</p>
<p>2. Scientific Acceptability of Measure Properties: (2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities) Rationale: The measure is precisely specified.</p>
<p>3. Usability: (3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures) Rationale: The measure is easy to understand.</p>
<p>4. Feasibility:</p>

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(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)
Rationale: Easily measured and derived from electronic sources.

1502 Risk-adjusted operative mortality for MV repair + CABG surgery

Description: Percent of patients undergoing combined MV repair and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

Numerator Statement: Number of patients undergoing combined MV repair and CABG who die, including both 1) all deaths occurring during the hospitalization in which the procedure was performed, even if after 30 days, and 2) those deaths occurring after discharge from the hospital, but within 30 days of the procedure.

Denominator Statement: All patients undergoing combined MV repair + CABG

Exclusions: N/A

Adjustment/Stratification: case-mix adjustment No stratification is required for this measure.

Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities

Type of Measure: Outcome

Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73

Measure Steward: Society of Thoracic Surgeons | 633 North Saint Clair Street, Suite 2320 | Chicago | Illinois | 60611

Steering Committee Recommendation for Endorsement: **Conditional** Y-21; N-0; A-0

Rationale: Important measure with variation of performance.

If applicable, Conditions/Questions for Developer:

1. 1b.4 Summary of Data on Disparities by Population Group: Please provide data on disparities.

Developer Response:

1. Data on disparities are provided in the form.

If applicable, Questions to the Steering Committee:

1. Importance to Measure and Report: Y-21; N-0
(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)
Rationale: Mortality varies for this procedure.

2. Scientific Acceptability of Measure Properties: C-16; P-4; M-0; N-0
(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)
Rationale: The measure is precisely specified.

3. Usability: C-20; P-1; M-0; N-0
(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)
Rationale: The measure is easy to understand.

4. Feasibility: C-21; P-0; M-0; N-0
(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)
Rationale: Easily measured and derived from electronic sources.

0124 Surgical volume-a. isolated coronary artery bypass graft (CABG) surgery, b. valve surgery, c. CABG+valve surgery

Description: Annual procedural volume of three surgeries: isolated CABG surgery, valve surgery, and valve+CABG surgery

Numerator Statement: a. number of patients undergoing isolated CABG surgery b. number of patients undergoing heart valve surgery c. number of patients undergoing CABG+valve surgery.

Denominator Statement: N/A

Exclusions: N/A

Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure.

Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities

Type of Measure: Structure/management

Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73

Measure Steward: Society of Thoracic Surgeons | 633 North Saint Clair Street, Suite 2320 | Chicago | Illinois | 60611

Steering Committee Recommendation for Endorsement: No

Rationale: Did not pass Importance to Measure and Report

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<p>If applicable, Conditions/Questions for Developer: Developer Response: If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-4; N-17</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: Volume alone is not an adequate quality marker. This measure should be paired with a companion outcome measure or it should be used to stratify volume but it should not be used as a stand-alone measure.</p>
<p>2. Scientific Acceptability of Measure Properties: <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale:</p>
<p>3. Usability: <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale:</p>
<p>4. Feasibility: <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i> Rationale:</p>

<p>0360 Esophageal resection mortality rate (paired with 0361)</p>
<p>Description: Number of inpatient deaths per 100 discharges with a procedure for esophageal resection. Numerator Statement: Number of deaths among cases meeting the inclusion and exclusion rules for the denominator. Denominator Statement: Discharges, age 18 years and older, with ICD-9-CM esophageal resection procedure code and a diagnosis code of esophageal cancer in any field OR gastrectomy procedure code ONLY if accompanied by selected diagnosis codes. Exclusions: Exclude discharges with pregnancy, discharge to a short term hospital or missing information for discharge disposition, age or sex. Adjustment/Stratification: case-mix adjustment/observed rates may be stratified by age group, race/ethnicity categories, payer categories and sex. Level of Analysis: Facility/Agency Type of Measure: Outcome Data Source: Electronic administrative data/claims Measure Steward: Agency for Healthcare Research and Quality 540 Gaither Road Rockville Maryland 20850</p>
<p>Steering Committee Recommendation for Endorsement: <u>Y-14; N-7; A-1=Meets NQF's evaluation criteria.</u> Final recommendation for endorsement is pending evaluation of related and competing measures. Rationale: Numerous studies have demonstrated a high variability in surgical mortality, largely influenced by hospital volume. The adoption of such a measure would encourage quality improvement at low-volume centers, or patients seeking care at centers with better results. Continued measurement and reporting of this measure is warranted as it will help advance the understanding of variations in outcome for esophageal resection and identify best practices.</p>
<p>If applicable, Conditions/Questions for Developer: Developer Response: If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-18; N-4</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: Esophagectomy for cancer carries a high risk of mortality given the magnitude of the procedure and the high risk population in which it is performed.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-3; P-16; M-2; N-1</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale: While this is an important measure, the relatively low volume of esophagectomies performed on an annual basis will make inter-hospital comparisons statistically difficult, especially for low-volume centers.</p>
<p>3. Usability: <u>C-6; P-13; M-1; N-2</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale: The Committee discussed the issue of low-volume centers and if their mortality could adequately predict future mortality. Concerns of consumers misinterpreting the data of low-volume centers were expressed.</p>

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<p>4. Feasibility: C-17; P-4; M-1; N-0 <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i> Rationale: The information is derived from electronic administrative data/claims.</p>
<p>0361 Esophageal resection volume (IQI 1) (paired with 0360)</p> <p>Description: Number of discharges with a procedure for esophageal resection. Numerator Statement: Discharges, age 18 years and older, with ICD-9-CM code for esophageal resection in any procedure field OR gastrectomy procedure code ONLY if accompanied by selected diagnosis codes. Denominator Statement: N/A Exclusions: N/A Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure. Level of Analysis: Facility/Agency Type of Measure: Structure/management Data Source: Electronic administrative data/claims Measure Steward: Agency for Healthcare Research and Quality 540 Gaither Road Rockville Maryland 20850</p> <p>Steering Committee Recommendation for Endorsement: Y-16; N-5; A-1=Meets NQF's evaluation criteria. Final recommendation for endorsement is pending evaluation of related and competing measures. Rationale: Numerous studies have demonstrated high variability in surgical mortality, largely influenced by hospital volume. The adoption of such a measure would encourage quality improvements at low-volume centers, or patients seeking care at centers with better results. Continued measurement and reporting of this measure is warranted as it will help advance our understanding of variations in outcome for esophageal resection and identify best practices.</p> <p>If applicable, Conditions/Questions for Developer: Developer Response: If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: Y-18; N-4 <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: Esophagectomy for cancer carries a high risk of mortality given the magnitude of the procedure and the high risk population in which it is performed.</p> <p>2. Scientific Acceptability of Measure Properties: C-8; P-11; M-3; N-0 <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale: Mortality rates provide more valuable information than volume. The Committee questioned if this measure was necessary since volume is a proxy for mortality and decided the measure is appropriately used and reported but should remain paired with 0360 and not reported as a stand-alone.</p> <p>3. Usability: C-7; P-14; M-1; N-0 <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale: Concerns of consumers misinterpreting the data of low-volume centers were expressed.</p> <p>4. Feasibility: C-17; P-5; M-0; N-0 <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i> Rationale: The information is derived from electronic administrative data/claims.</p>

<p>0116 Anti-platelet medication at discharge</p> <p>Description: Percent of patients aged 18 years and older undergoing isolated CABG who were discharged on anti-platelet medication. Numerator Statement: Number of patients undergoing isolated CABG who were discharged on anti-platelet medication. Denominator Statement: All patients undergoing isolated CABG. Exclusions: Cases are removed from the denominator if there was an in-hospital mortality or if discharge aspirin was contraindicated. Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure. Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities Type of Measure: Process Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73 Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p> <p>Steering Committee Recommendation for Endorsement: Conditional Y-21; N-0; A-0 Rationale: Though the measure has been in use for multiple years, there is still a performance gap; performance across provider</p>
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<p>organizations ranges from 85-100 percent.</p> <p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> 1. <u>1b.4 Summary of Data on Disparities by Population Group</u>: Please provide data on disparities. 2. <u>2a Measure Specifications</u>: When are denominator exclusions with respect to calculating the numerator? 3. <u>2a.2 Numerator Time Window</u>: Provide the time period in which cases are eligible for inclusion in the numerator. 4. Indicate acceptability of Plavix/clopidogrel, where applicable, throughout. The numerator statement includes anti-platelet medications; however, the denominator excludes those with an aspirin contraindication. Is a patient who is on Plavix because of an aspirin contraindication counted in the numerator or excluded from the denominator? <p>Developer Response:</p> <ol style="list-style-type: none"> 1. Data on disparities are provided in the form. 2. If discharge aspirin is marked contraindicated or there is an in-hospital mortality, the patient is excluded from the denominator, and therefore, the measure is calculated without those patients. 3. Indicated in the measure 4. Existing numerator details state that either discharge aspirin or ADP inhibitors are acceptable. If a patient is on Plavix due to an aspirin contraindication, s/he is counted in the numerator because STS accepts either ASA or ADP inhibitors for the numerator (i.e., Number of isolated CABG procedures in which discharge aspirin [DCASA] or discharge ADP inhibitors [DCADP] is marked "yes"). <p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-21; N-0</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: The use of anti-platelet therapy at discharge is currently an accepted standard of care to improve bypass graft patency and promote secondary prevention of coronary artery disease and performance gap remains.</p> <p>2. Scientific Acceptability of Measure Properties: <u>C-18; P-3; M-0; N-0</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale: The Committee was uncertain as to when exclusions were applied. The Committee questioned if Plavix was an acceptable alternative if aspirin is contraindicated.</p> <p>3. Usability: <u>C-21; P-0; M-0; N-0</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale: The measure is currently widely used both as a CMS PQRI measure (measure 169) and at hospitals that are participating in the STS Adult Cardiac Surgery Database providing information that providers can use to analyze and improve anti-platelet use practices.</p> <p>4. Feasibility: <u>C-20; P-1; M-0; N-0</u> <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i> Rationale: The measure can be easily implemented.</p>

<p>0118 Anti-lipid treatment discharge</p> <p>Description: Percent of patients aged 18 years and older undergoing isolated CABG who were discharged on a statin or other lipid-lowering regimen.</p> <p>Numerator Statement: Number of patients undergoing isolated CABG who were discharged on a statin or other lipid-lowering regimen.</p> <p>Denominator Statement: All patients undergoing isolated CABG.</p> <p>Exclusions: Cases are removed from the denominator if there was an in-hospital mortality or if discharge anti-lipid treatment was contraindicated.</p> <p>Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure.</p> <p>Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities</p> <p>Type of Measure: Process</p> <p>Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73</p> <p>Measure Steward: Society of Thoracic Surgeons 633 North Saint Clair Street, Suite 2320 Chicago Illinois 60611</p> <p>Steering Committee Recommendation for Endorsement: Conditional Y-21; N-0; A-0</p> <p>Rationale: Although the current compliance rate is 98 percent, there is still regional variation where performance is low.</p> <p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> 1. <u>1b.4 Summary of Data on Disparities by Population Group</u>: Please provide data on disparities. <p>Developer Response:</p> <ol style="list-style-type: none"> 1. Data on disparities are provided in the form.

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<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-21; N-0</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: Strong clinical evidence indicates that a lipid-lowering regimen is of benefit to patients post-CABG.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-20; P-1; M-0; N-0</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale: Specifications are well defined. Reliability and validity testing results are reported with rates of p=0.76 and 96.5% agreement respectively</p>
<p>3. Usability: <u>C-20; P-0; M-1; N-0</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale: The Committee would like to see an increase in utilization of the measure and eventually become a standard practice of care.</p>
<p>4. Feasibility: <u>C-21; P-0; M-0; N-0</u> <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i> Rationale: The measure can be easily implemented.</p>

<p>1479 Patient(s) 18 years of age and older on lipid-lowering medication at admission or within seven days of discharge of an isolated CABG procedure</p>
<p>Description: Patient(s) 18 years of age and older hospitalized for an isolated CABG procedure taking a lipid-lowering medication at admission or within seven days of discharge. Numerator Statement: Patient(s) who are taking a lipid-lowering medication at CABG admission date or within seven days of discharge. Denominator Statement: People hospitalized for an isolated CABG procedure. Exclusions: 1. Exclude patients who were readmitted to an acute or non-acute care facility for any diagnosis within seven days after discharge 2. Exclude the event if the patient died during the admission 3. Exclude the event if the patient did not have pharmacy benefits throughout the CABG event. 4. Exclude the event if the patient had a contraindication for anti-lipid therapy. Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure. Level of Analysis: Can be measured at all levels. Type of Measure: Process Data Source: Electronic administrative data/claims; pharmacy claims Measure Steward: Ingenix 12125 Technology Drive Eden Prairie Minnesota 55344</p>
<p>Steering Committee Recommendation for Endorsement: <u>Y-1; N-19; A-1</u> Rationale: The goal of the measure is laudable as it begins to view the issue of patient compliance and medication reconciliation. However, the measure is not constructed properly to achieve the goal. The actual outcome of the measure is unclear. This measure has the potential for socioeconomic bias because patients without pharmacy benefits are excluded from the measure.</p>
<p>If applicable, Conditions/Questions for Developer: Developer Response:</p>
<p>If applicable, Questions to the Steering Committee:</p> <p>1. Importance to Measure and Report: <u>Y-12; N-9</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: Strong clinical evidence indicates that a lipid-lowering regime is of benefit to patients post-CABG.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-1; P-7; M-12; N-1</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale: The Committee inquired about the percentage of patients over the age of 65 years old that were captured in this measure. The issue of attribution and accountability was discussed. It was not clear if the hospital or physicians are being held accountable if patients elect not to fill their prescriptions. This measure does not allow organizations to accurately capture data on disparities because patients without a pharmacy benefit are excluded from the measure.</p>
<p>3. Usability: <u>C-3; P-6; M-9; N-3</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale: The developer is unsure if the measure is being publicly reported.</p>

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4. Feasibility: C-5; P-8; M-7; N-1
(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)
Rationale: The developer was unable to provide information on costs to implement the measure. Data is abstracted using claims and chart abstraction data.

0130 Risk-adjusted deep sternal wound infection rate

Description: Percent of patients aged 18 years and older undergoing isolated CABG who, within 30 days postoperatively, develop deep sternal wound infection involving muscle, bone, and/or mediastinum requiring operative intervention.

Numerator Statement: Number of patients who, within 30 days postoperatively, develop deep sternal wound infection involving muscle, bone, and/or mediastinum requiring operative intervention.
 Must have all of the following conditions:
 - Wound opened with excision of tissue (I&D) or re-exploration of mediastinum
 - Positive culture unless patient on antibiotics at time of culture or no culture obtained
 - Treatment with antibiotics beyond perioperative prophylaxis

Denominator Statement: All patients undergoing isolated CABG

Exclusions: N/A

Adjustment/Stratification: case-mix adjustment necessary No stratification is required for this measure

Level of Analysis: Clinicians: Group; Facility/Agency; Population: National, regional/network, states, counties or cities

Type of Measure: Outcome

Data Source: Registry data-STS Adult Cardiac Surgery Database, Version 2.73

Measure Steward: Society of Thoracic Surgeons | 633 North Saint Clair Street, Suite 2320 | Chicago | Illinois | 60611

Steering Committee Recommendation for Endorsement: **Conditional**Y-20; N-1; A-0

Rationale: There is an opportunity for improvement due to the presence of variation within the performance gap.

If applicable, Conditions/Questions for Developer:
 1. 1b.4 Summary of Data on Disparities by Population Group: Please provide data on disparities.

Developer Response:
 1. Data on disparities are provided in the form.

If applicable, Questions to the Steering Committee:

1. Importance to Measure and Report: Y-21; N-0
(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)
Rationale: There is significant morbidity and mortality associated with this condition.

2. Scientific Acceptability of Measure Properties: C-20; P-1; M-0; N-0
(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)
Rationale: The measure is important based on surgical wound infection as an important indicator of performance; the specifications are clearly and fully defined. The 30 day time interval for occurrence of sternal wound infection is appropriate.

3. Usability: C-19; P-2; M-0; N-0
(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)
Rationale: STS reports it has worked to harmonize its definition of surgical site infection with CDC's definition and has done so except with respect to the time interval. At present, STS believes the 30 day time interval for the measure vs. the CDC 12 months outer limit is most appropriate.

4. Feasibility: C-19; P-2; M-0; N-0
(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)
Rationale: The measure can be easily implemented.

0300 Cardiac patients with controlled 6 am postoperative serum glucose

Description: Percentage of cardiac surgery patients with controlled 6 am serum glucose (≤ 200 mg/dl) on postoperative day (POD) 1 and POD 2.

Numerator Statement: Surgery patients with controlled 6 am serum glucose (≤ 200 mg/dl) on postoperative day (POD) 1 and POD 2.

Denominator Statement: Cardiac surgery patients with no evidence of prior infection. Include patients with an ICD-9-CM Principle Procedure code or ICD-9-CM Other Procedure codes of selected surgeries AND an ICD-9-CM for ICD-9-CM codes Principle Procedure code or ICD-9-CM Other Procedure codes of selected surgeries.

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<p>Exclusions: Excluded Populations:</p> <ul style="list-style-type: none"> • Patients less than 18 years of age • Patients who have a length of Stay greater than 120 days • Patients who had a principal diagnosis suggestive of preoperative infectious diseases (as defined in Appendix A, Table 5.09 for ICD-9-CM codes) • Burn and transplant patients (as defined in Appendix A, Tables 5.14 and 5.15 for ICD-9-CM codes) • Patients whose ICD-9-CM principal procedure was performed entirely by Laparoscope • Patients enrolled in clinical trials • Patients whose ICD-9-CM principal procedure occurred prior to the date of admission • Patients with physician/advanced practice nurse/physician assistant (physician/APN/PA) documented infection prior to surgical procedure of interest • Patients who expired perioperatively <p>Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure.</p> <p>Level of Analysis: Facility/Agency; Population: national; Program: QIO; can be measured at all levels</p> <p>Type of Measure: Process</p> <p>Data Source: Electronic administrative data/claims; paper medical record/flow-sheet. Vendor tools or CART.</p> <p>Measure Steward: Centers for Medicare & Medicaid Services 7500 Security Boulevard Baltimore Maryland 21244</p>
<p>Steering Committee Recommendation for Endorsement: Conditional <u>Y-9; N-10; A-2</u></p>
<p>Rationale: The Committee suggested the developer change the timeframe from 6 am to 24 hours due to variation in time of surgery.</p>
<p>If applicable, Conditions/Questions for Developer:</p> <ol style="list-style-type: none"> 1. <u>2a.1 Numerator Statement:</u> The timeframe should be within 24 hours after surgery instead of 6 am. 2. <u>2a.10 Denominator Exclusion Details:</u> Provide a more detailed definition of perioperative death. <p>Developer Response:</p> <ol style="list-style-type: none"> 1. This recommendation is being presented to the SCIP Infection TEP on April 6, 2011. 2. Patients that expire during the perioperative period are excluded from this measure, as they should not be held accountable for glucose values on POD 1 or 2. The data element has this definition: The patient expired during the timeframe <u>from surgical incision through discharge from the post anesthesia care/recovery area</u>. Additional abstraction instructions include: For patients discharged from surgery and admitted to the PACU: The end of the perioperative period occurs when the patient is discharged from the PACU. For patients discharged from surgery and admitted to locations other than the PACU (e.g., ICU): The perioperative period would end a maximum of six hours after arrival to the recovery area.
<p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-16; N-5</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: The goal of the measure, to improve patient's blood sugar, is important. Performance at the aggregate is 93.4%; disparity information requested to understand if there are subpopulation disparities.</p>
<p>2. Scientific Acceptability of Measure Properties: <u>C-2; P-12; M-7; N-0</u> <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale: There is a need for more flexibility in the timeframe to allow comparability since variation in patient times of departure from the operating room. Both the committee and developer have heard anecdotal reports that clinical staff is leaving patients on insulin drips to meet the criteria of the measure. Assuming this to be accurate, the timeframe change will address such an unintended consequence of the measure.</p>
<p>3. Usability: <u>C-5; P-6; M-10; N-0</u> <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale: The Committee was unsure if this measure would provide additive value if the timeframe remains at 6 am.</p>
<p>4. Feasibility: <u>C-5; P-9; M-7; N-0</u> <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale: The measure cannot be easily implemented using the current timeframe.</p>

<p>0218 Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time</p>
<p>Description: Percentage of surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior</p>

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to surgery to 24 hours after surgery end time.

Numerator Statement: Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time.

Denominator Statement: All selected surgery patients.

Exclusions: Data elements: clinical trial, laparoscope, perioperative death, preadmission warfarin, reason for not administering VTE prophylaxis

Adjustment/Stratification: no risk adjustment necessary/Stratified by surgery type and those are intracranial neurosurgery, general surgery, gynecologic surgery, urologic surgery, elective total hip replacement

Level of Analysis: Facility/Agency; Program: QIO; can be measured at all levels

Type of Measure: Process

Data Source: Electronic clinical data; electronic health/medical record; paper medical record/flow-sheet. Vendor tools or CART.

Measure Steward: Centers for Medicare & Medicaid Services | 7500 Security Boulevard | Baltimore | Maryland | 21244

Steering Committee Recommendation for Endorsement: **Conditional** Y-16; N-3; A-1=Meets NQF's evaluation criteria. Final recommendation for endorsement is pending evaluation of related and competing measures.

Rationale: The large number of patients at risk and rate of death demonstrates the importance of continuing to strive for 100 percent compliance since VTE is one of the most common preventable causes of hospital death with about 1/3 of such occurrences being fatal.

If applicable, Conditions/Questions for Developer:

1. **2a Measure Specifications:** The length-of-stay indicated in the form is inconsistent. Length-of-stay is listed as three calendar days in some areas of the form and 24 hours in other areas.
2. **2a.3 Numerator Details:** Provide a more detailed definition of what constitutes 'appropriate VTE prophylaxis' and attempt to reconcile ACCP guidelines with other evidence based guidelines for relevant populations (e.g. AAOS for orthopedic procedures).
3. **2a.10 Denominator Exclusion Details:** Provide a more detailed definition of the laparoscopic exclusion or remove laparoscopic procedures from the denominator exclusions.

Developer Response:

1. The numerator time window (section 2a.2) is 24 hours prior to incision to 24 hours after surgery end time. Included in the measure submission is an exclusion statement "Patients with hospital length of stay less than or equal to 3 calendar days" that was not consistent with the exclusion statements in the paired measure, #217. All of the information about length of stay in #218 is correct. Measure #217 contains an incorrect statement about length of stay, but that measure is not being considered for re-endorsement, so it will not be corrected.
2. The submission form requests a link to the specifications and specifically recommends against the use of attachments. The Measure Information Form on the QualityNet website provides a very detailed table listing the procedure type and the appropriate VTE prophylaxis. That table is below. The recommendations in the measure are based on Level I evidence, per the ACCP Guidelines. The AAOS has this recommendation for prevention of symptomatic PE in patients undergoing hip/knee arthroplasty, with a Level III rating. *The use of aspirin as a monotherapy is the only recommendation that does not agree with the ACCP Guidelines.* The recommendation from AAOS is listed below:

Recommendation 3.3

Chemoprophylaxis of patients undergoing hip or knee replacement

Recommendation 3.3.1

Patients at standard risk of both PE and major bleeding should be considered for one of the chemoprophylactic agents evaluated in this guideline, including—in alphabetical order: Aspirin, low molecular-weight heparin (LMWH), synthetic pentasaccharides, and warfarin. (Level III, Grade B [choice of prophylactic agent], Grade C [dosage and timing])

Note: The grade of recommendation was reduced from B to C for dosage and timing because of the lack of consistent evidence in the literature defining a clearly superior regime.

3. The exclusion for laparoscopic procedures is being removed for discharges beginning 1/1/2012.

If applicable, Questions to the Steering Committee:

1. Importance to Measure and Report: Y-20; N-0

(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)

Rationale: Performance in qtr 1, 2010 was 92.5%, up from 69.79% in 2005 with significant remaining opportunity for improvement. Studies have indicated that the number one cause of 30-day mortality in cancer patients after surgery is related to venous thromboembolism.

2. Scientific Acceptability of Measure Properties: C-6; P-13; M-1; N-0

(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)

Rationale: The numerator is not harmonized with other evidence-based guidelines. Laparoscopic surgery is not well defined and should be removed from the list of exclusions as they are high risk patients.

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<p>3. Usability: C-9; P-11; M-0; N-0 <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale: The data sources include electronic clinical data, the electronic medical record where in use and paper medical record abstraction. It is in use in U.S. hospitals receiving Medicare reimbursement nationally/</p>
<p>4. Feasibility: C-13; P-7; M-0; N-0 <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale: The measure can be easily implemented.</p>

<p>0217 Surgery patients with recommended venous thromboembolism (VTE) prophylaxis ordered</p> <p>Description: Percentage of surgery patients with recommended venous thromboembolism (VTE) prophylaxis ordered during admission. Numerator Statement: Surgery patients with recommended venous thromboembolism (VTE) prophylaxis ordered during admission. Denominator Statement: All selected surgery patients. Exclusions: Patients who are less than 18 years of age. Patients with procedures performed entirely by laparoscope. Patients whose total surgery time is less than or equal to 30 minutes. Patients who stayed less than or equal to 24 hours postoperatively. Burn patients (refer to Specifications Manual, National Healthcare Quality Measures, Appendix A, Table 5.14 for ICD-9-CM codes). Patients who are on warfarin prior to admission. Patients with contraindications to both mechanical and pharmacological prophylaxis. Patients whose ICD-9-CM Principal Procedure occurred prior to the date of admission. Adjustment/Stratification: no risk adjustment necessary/Stratified by surgery type and those are intracranial neurosurgery, general surgery, gynecologic surgery, urologic surgery, elective total hip, elective total knee, hip fracture surgery Level of Analysis: Facility/Agency; Population: national; Program: QIO; can be measured at all levels Type of Measure: Process Data Source: Electronic health/medical record; paper medical record/flow-sheet. Vendor tools or CART. Measure Steward: Centers for Medicare & Medicaid Services 7500 Security Boulevard Baltimore Maryland 21244</p>
<p>Steering Committee Recommendation for Endorsement: <u>No</u> Rationale: Did not pass Importance to Measure and Report</p>
<p>If applicable, Conditions/Questions for Developer: Developer Response: If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-2; N-17</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: The Committee determined this measure was not necessary since measure 0218 is more proximal to the outcome.</p>
<p>2. Scientific Acceptability of Measure Properties: <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale:</p>
<p>3. Usability: <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale:</p>
<p>4. Feasibility: <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i> Rationale:</p>

The following seven measures submitted by The Joint Commission were withdrawn from the project a few days after the in-person meeting. The Committee noted that these measures addressed important concepts; however, the way the measures are constructed does not clearly and fully address the concept of ensuring safe blood and blood product transfusion practices. It was suggested that The Joint Commission consider creating a national patient safety goal that would target the issues of blood transfusions. The Joint Commission acknowledged the concerns that were raised by the Committee.

1526 Transfusion consent

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<p>Description: Percentage of patients with a signed consent for blood transfusion who received information about the risks, benefits and alternatives of transfusions prior to the initial transfusion or the initial transfusion was deemed a medical emergency-applicable to inpatients of all ages.</p> <p>Numerator Statement: Patients with a signed consent for blood transfusion who received information about the risks, benefits and alternatives of transfusions prior to the initial transfusion or the initial transfusion was deemed a medical emergency.</p> <p>Denominator Statement: Patients who received red blood cells, platelets or plasma</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: no risk adjustment necessary No stratification is required for this measure.</p> <p>Level of Analysis: Facility/Agency; can be measured at all levels</p> <p>Type of Measure: Process</p> <p>Data Source: Paper medical record/flow-sheet; electronic administrative data/claims</p> <p>Measure Steward: The Joint Commission One Renaissance Boulevard Oak Terrace Illinois 60181</p>
<p>Steering Committee Recommendation for Endorsement: <u>No</u></p> <p>Rationale: Did not pass Importance to Measure and Report</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>Developer Response:</p> <p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-0; N-22</u> (1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</p> <p>Rationale: The concept of patient-centered care is important; however, there is no evidence to demonstrate that this measure has an impact on practice. The mean performance rate within the pilot hospitals was 89.7%</p>
<p>2. Scientific Acceptability of Measure Properties: (2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</p> <p>Rationale:</p>
<p>3. Usability: (3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</p> <p>Rationale: Measure of bloodstream infection would be usable for both public reporting and quality improvement.</p>
<p>4. Feasibility: (4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</p> <p>Rationale:</p>

<p>1532 Plasma transfusion indication</p> <p>Description: Percentage of transfused plasma units (bags) with pre-transfusion PT/INR result and clinical indication documented-applicable to inpatients of all ages.</p> <p>Numerator Statement: Number of plasma doses (bags) with pre-transfusion PT/INR result and clinical indication documented.</p> <p>Denominator Statement: Number of transfused plasma units evaluated.</p> <p>Exclusions: Trauma patients.</p> <p>Adjustment/Stratification: no risk adjustment necessary/Units may be stratified according to the blood administration location at the start of the transfusion. The definition is the location where the blood transfusion started. Allowable values for settings are: intraoperative or non-intraoperative settings.</p> <p>Level of Analysis: Facility/Agency; can be measured at all levels</p> <p>Type of Measure: Process</p> <p>Data Source: Paper medical record/flow-sheet; Electronic administrative data/claims; lab data</p> <p>Measure Steward: The Joint Commission One Renaissance Boulevard Oak Terrace Illinois 60181</p>
<p>Steering Committee Recommendation for Endorsement: <u>No</u></p> <p>Rationale: Did not pass Importance to Measure and Report</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>Developer Response:</p> <p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-2; N-20</u> (1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</p> <p>Rationale: There is no evidence that suggests putting the indication or performing the PT/INR is going to improve quality outcomes or decrease utilization. The mean performance rate within the pilot hospitals was 76.2%.</p>

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<p>2. Scientific Acceptability of Measure Properties: <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale:</p>
<p>3. Usability: <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale:</p>
<p>4. Feasibility: <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale:</p>

<p>1539 Platelet transfusion indication</p> <p>Description: Percentage if transfused platelet doses (bags) with pre-transfusion platelet count result and clinical indication documented-applicable to inpatients of all ages.</p> <p>Numerator Statement: Number of platelet doses (bags) with pre-transfusion platelet count result and clinical indication documented.</p> <p>Denominator Statement: Number of transfused platelet doses (bags) evaluated.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: no risk adjustment necessary/This measure could be stratified using the data element blood administration location. The definition is the location where the blood transfusion started. Allowable values for settings are: intraoperative or non-intraoperative settings.</p> <p>Level of Analysis: Facility/Agency; can be measured at all levels</p> <p>Type of Measure: Process</p> <p>Data Source: Documentation of original self-assessment; paper medical record/flow-sheet; lab data</p> <p>Measure Steward: The Joint Commission One Renaissance Boulevard Oak Terrace Illinois 60181</p>
<p>Steering Committee Recommendation for Endorsement: <u>No</u></p> <p>Rationale: Did not pass Importance to Measure and Report</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>Developer Response:</p> <p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-0; N-22</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: There is no evidence that suggests putting the indication or performing the platelet count is going to improve quality outcomes or decrease utilization. The mean performance rate for the pilot hospitals was 74.9%.</p>
<p>2. Scientific Acceptability of Measure Properties: <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale:</p>
<p>3. Usability: <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale:</p>
<p>4. Feasibility: <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale:</p>

<p>1527 RBC transfusion indication</p> <p>Description: Percentage of transfused red blood cell units (bags) with pre-transfusion hemoglobin or hematocrit result and clinical indication documented-applicable to inpatients of all ages.</p> <p>Numerator Statement: Number of RBC units with pre-transfusion hemoglobin or hematocrit result and clinical indication documented.</p> <p>Denominator Statement: Number of transfused red blood cell (RBC) units evaluated.</p> <p>Exclusions: N/A</p> <p>Adjustment/Stratification: no risk adjustment necessary/This measure could be stratified using the data element blood administration</p>
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<p>location. The definition is the location where the blood transfusion started. Allowable values for settings are: intraoperative or non-intraoperative settings.</p> <p>Level of Analysis: Facility/Agency; can be measured at all levels</p> <p>Type of Measure: Process</p> <p>Data Source: Paper medical record/flow-sheet; Electronic administrative data/claims; lab data</p> <p>Measure Steward: The Joint Commission One Renaissance Boulevard Oak Terrace Illinois 60181</p>
<p>Steering Committee Recommendation for Endorsement: <u>No</u></p> <p>Rationale: Did not pass Importance to Measure and Report</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>Developer Response:</p> <p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-0; N-22</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: There is no evidence to suggest documenting clinical indication will lead to quality improvement. The mean performance rate for the pilot hospitals was 81.2%</p>
<p>2. Scientific Acceptability of Measure Properties: <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale:</p>
<p>3. Usability: <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale:</p>
<p>4. Feasibility: <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale:</p>

<p>1541 Blood administration documentation</p> <p>Description: Percentage of transfused units/doses (bags) of RBCs, plasma or platelets with documentation for all of the following: 1. Patient identification (ID) and transfusion order (blood ID number) confirmed prior to the initiation of blood 2. Date and time of transfusion 3. Blood pressure, pulse and temperature recorded pre, during and post transfusion.</p> <p>Numerator Statement: Number of transfusion units or doses with documentation for all of the following: 1. Patient identification (ID) and transfusion order (blood ID number) confirmed prior to the initiation of blood 2. Date and time of transfusion 3. Blood pressure, pulse and temperature recorded pre, during and post transfusion.</p> <p>Denominator Statement: Number of transfused red blood cells, plasma and platelet units/doses evaluated.</p> <p>Exclusions: Units associated with documentation of massive transfusion protocol (MTP) or hemorrhagic shock. Uncrossmatched units of RBCs. RBC units used to prime pumps.</p> <p>Adjustment/Stratification: no risk adjustment necessary/This measure could be stratified using the data element blood administration location. The definition is the location where the blood transfusion started. Allowable values for settings are: intraoperative or non-intraoperative settings.</p> <p>Level of Analysis: Facility/Agency; can be measured at all levels</p> <p>Type of Measure: Process</p> <p>Data Source: Paper medical record/flow-sheet; Electronic administrative data/claims; lab data</p> <p>Measure Steward: The Joint Commission One Renaissance Boulevard Oak Terrace Illinois 60181</p>
<p>Steering Committee Recommendation for Endorsement: <u>No</u></p> <p>Rationale: Did not pass Importance to Measure and Report</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>Developer Response:</p> <p>If applicable, Questions to the Steering Committee</p>
<p>1. Importance to Measure and Report: <u>Y-8; N-13</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: Documenting blood administration is a standard protocol in hospitals. The mean performance rate in the pilot hospitals was 76/1%.</p>
<p>2. Scientific Acceptability of Measure Properties: <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f.</i></p>

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<p><i>Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale:</p>
<p>3. Usability: <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale:</p>
<p>4. Feasibility: <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale:</p>

<p>1542 Preoperative anemia screening</p> <p>Description: Percentage of selected orthopedic, cardiac and hysterectomy elective surgical patient = 18 years with documentation of preoperative anemia screening 14-45 days before anesthesia start date.</p> <p>Numerator Statement: Patients with documentation of preoperative anemia screening 14-45 days before anesthesia start date.</p> <p>Denominator Statement: Selected elective surgery patients.</p> <p>Exclusions: Patients not admitted from home.</p> <p>Adjustment/Stratification: no risk adjustment necessary/This measure could be stratified according to ICD-9-CM procedure codes for cardiac, orthopedic and hysterectomy. Algorithms are provided in the attachment for section 2a.30.</p> <p>Level of Analysis: Facility/Agency; can be measured at all levels.</p> <p>Type of Measure: Process</p> <p>Data Source: Paper medical record/flow-sheet; Electronic administrative data/claims; lab data</p> <p>Measure Steward: The Joint Commission One Renaissance Boulevard Oak Terrace Illinois 60181</p>
<p>Steering Committee Recommendation for Endorsement: <u>No</u></p> <p>Rationale: Did not pass Importance to Measure and Report</p>
<p>If applicable, Conditions/Questions for Developer:</p> <p>Developer Response:</p> <p>If applicable, Questions to the Steering Committee:</p>
<p>1. Importance to Measure and Report: <u>Y-3; N-18</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i></p> <p>Rationale: Though anemia is associated with poor outcomes, there is no evidence that the timeframe of preoperative screening will improve the outcome or quality of care.</p>
<p>2. Scientific Acceptability of Measure Properties: <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i></p> <p>Rationale:</p>
<p>3. Usability: <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i></p> <p>Rationale:</p>
<p>4. Feasibility: <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i></p> <p>Rationale:</p>

<p>1547 Preoperative blood type testing and antibody screening</p> <p>Description: Percentage of selected orthopedic, cardiac and hysterectomy elective surgical patients = 18 years with preoperative blood type testing and antibody screening (type and screen or type and crossmatch) ordered and completed prior to anesthesia start time.</p> <p>Numerator Statement: Patients with preoperative type and screen (T&S) or type and crossmatch (TCM) completed prior to surgery start time.</p> <p>Denominator Statement: Selected elective surgical patients.</p> <p>Exclusions: Patients without an order to T&S or TCM. Patients not admitted from home.</p> <p>Adjustment/Stratification: no risk adjustment necessary/This measure could be stratified according to ICD-9-CM procedure codes for cardiac, orthopedic and hysterectomy. Algorithms are provided in the attachment for section 2a.30.</p> <p>Level of Analysis: Facility/Agency; can be measured at all levels</p>

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Type of Measure: Process Data Source: Paper medical record/flow-sheet; Electronic administrative data/claims; lab data Measure Steward: The Joint Commission One Renaissance Boulevard Oak Terrace Illinois 60181
Steering Committee Recommendation for Endorsement: <u>No</u> Rationale: Did not pass Importance to Measure and Report
If applicable, Conditions/Questions for Developer: Developer Response: If applicable, Questions to the Steering Committee:
1. Importance to Measure and Report: <u>Y-4; N-17</u> <i>(1a. Impact; 1b. Performance gap; 1c. Outcome or Evidence)</i> Rationale: There are minimal studies that indicated there is currently a performance gap.
2. Scientific Acceptability of Measure Properties: <i>(2a. Precise specifications; 2b. Reliability testing; 2c. Validity testing; 2d. Exclusions justified; 2e. Risk adjustment/stratification; 2f. Meaningful differences; 2g. Comparability; 2h. Disparities)</i> Rationale:
3. Usability: <i>(3a. Meaningful/useful for public reporting and quality improvement; 3b. Harmonized; 3c. Distinctive or additive value to existing measures)</i> Rationale:
4. Feasibility: <i>(4a. Clinical data generated during care process; 4b. Electronic sources; 4c. Exclusions – no additional data source; 4d. Susceptibility to inaccuracies/ unintended consequences identified 4e. Data collection strategy can be implemented)</i> Rationale:

NEXT STEPS

Ms. Murphy indicated that project staff within the next week, will provide the Committee with the committee votes related to the extent to which the measures meet measure evaluation criteria as well as a document outlining the Committee’s conditions for measures deemed as meeting NQF criteria for endorsement, and an updated phase I table of related and competing measures. Recommendations regarding endorsement will be made after discussion of related and competing measures. Staff will also create a survey to determine the Committee’s availability to review the measure developers’ responses to the Committee’s suggested modifications and discuss related and competing measures. Ms. Forman noted that staff will provide developers with a two to three week deadline to response to the Committee’s suggestions and the conference call will occur prior to the Committee receiving phase II measures.

Prior to sending the Committee the phase II measures, staff will offer developers the opportunity to provide information that is currently missing or needs clarification. The workgroups will reconvene prior to the May 4-5, 2011 in-person meeting to discuss the preliminary evaluations of the groups’ assigned measures.