



Measure Information

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

Brief Measure Information

NQF #: 0284

Corresponding Measures:

De.2. Measure Title: Surgery Patients on Beta-Blocker Therapy Prior to Arrival Who Received a Beta-Blocker During the Perioperative Period

Co.1.1. Measure Steward: Centers for Medicare & Medicaid Services

De.3. Brief Description of Measure: Percentage of patients on beta blocker therapy prior to arrival who received a beta blocker during the perioperative period. To be in the denominator, the patient must be on a beta-blocker prior to arrival. The case is excluded if the patient is not on a beta-blocker prior to arrival.

1b.1. Developer Rationale: Mortality in patients who have their routine beta-blockers discontinued postoperatively is greater than in patients in whom beta-blockers are continued. Beta-blocker withdrawal has been associated with an increased risk of mortality compared with nonusers.

S.4. Numerator Statement: Surgery patients on beta-blocker therapy prior to arrival who receive a beta-blocker during the perioperative period.

S.7. Denominator Statement: All surgery patients on beta-blocker therapy prior to arrival.

S.10. Denominator Exclusions: Excluded Populations:

- Patients less than 18 years of age
- Patients who have a Length of Stay greater than 120 days
- Patients enrolled in clinical trials
- Patients whose ICD-9-CM principal procedure occurred prior to the date of admission
- Patients who expired during the perioperative period
- Pregnant patients taking a beta-blocker prior to arrival
- Patients with a documented Reason for Not Administering Beta-Blocker-Perioperative
- Patients with Ventricular Assist Devices or Heart Transplantation (as defined in Appendix A, Table 5.26 for ICD-9-CM codes)

De.1. Measure Type: Process

S.23. Data Source: Claims, Paper Medical Records

S.26. Level of Analysis: Facility, Other, Population : Regional and State

IF Endorsement Maintenance – Original Endorsement Date: Oct 01, 2007 **Most Recent Endorsement Date:** Jan 31, 2012

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

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

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? NA

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

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-

than-optimal performance. **Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.**

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form
[0284_Evidence_MSF5.0_Data.doc](#)

1b. Performance Gap

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

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

1b.1. Briefly explain the rationale for this measure (e.g., the benefits or improvements in quality envisioned by use of this measure)
Mortality in patients who have their routine beta-blockers discontinued postoperatively is greater than in patients in whom beta-blockers are continued. Beta-blocker withdrawal has been associated with an increased risk of mortality compared with nonusers.

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

Measure is reported as a rate. Measure has been collected since Q1 2009 with rates as followed:

1Q09- 89.2%
2Q09- 90.5%
3Q09- 91.5%
4Q09- 92.5%
1Q10- 93.1%

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

1Q2010 data, from 3252 reporting hospitals:

Numerator: 106,625

Denominator: 114,496

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. (This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

A disparities report is attached to this submission.

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

The attached disparities report uses 2009 data from the clinical data warehouse.

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

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF;
OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare

Affects large numbers

1c.2. If Other:

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

List citations in 1c.4.

Concerns regarding the discontinuation of beta-blocker therapy in the perioperative period have existed for several decades. Shammash and colleagues studied a total of 140 patients who received beta-blockers preoperatively. Mortality in the 8 patients who had beta-blockers discontinued postoperatively (50%) was significantly greater than in the 132 patients in whom beta-blockers were continued. Hoeks and colleagues studied 711 consecutive peripheral vascular surgery patients. After adjustment for potential confounders and the propensity of its use, continuous beta-blocker use remained significantly associated with a lower 1-year mortality than among nonusers. In contrast, beta-blocker withdrawal was associated with an increased risk of 1-year mortality compared with nonusers.

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

-Hoeks SE, Scholte Op Reimer WJ, van Urk H, et al. Increase of 1-year mortality after perioperative beta-blocker withdrawal in endovascular and vascular surgery patients. *Eur J Vasc Endovasc Surg* 2007;33:13–9.
-Shammash JB, Trost JC, Gold JM, et al. Perioperative beta-blocker withdrawal and mortality in vascular surgical patients. *Am Heart J*. 2001;141:148-153. PMID: 11136500.

1c.5. If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

2. Reliability and Validity—Scientific Acceptability of Measure Properties

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

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

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

[Surgery](#)

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

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

<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228773564870>

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

Attachment:

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

Attachment Attachment: [Data_Dic_MIF_Appendix_A_Table_5.10_and_Table_5.26_-2-.xlsx](#)

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

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)

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

Surgery patients on beta-blocker therapy prior to arrival who receive a beta-blocker during the perioperative period.

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

The perioperative period for the SCIP Cardiac measures is defined as the day prior to surgery through postoperative day two (POD 2) with day of surgery being day zero which is the date anesthesia ends.

If the postoperative length of stay = 2 days, the measure evaluates the administration of more than one dose of a beta-blocker: the day prior to or the day of surgery and on postoperative day one (POD 1) or postoperative day two (POD 2) unless reasons for not administering the medication were documented. If the postoperative length of stay was < 2 days, the measure will evaluate the administration of the beta-blocker on the day prior to or the day of surgery only, unless reasons for not administering the medication were documented.

S.6. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

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

Data element:

Beta-Blocker Perioperative

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

All surgery patients on beta-blocker therapy prior to arrival.

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

Elderly

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

ICD-9-CM Principal Procedure Code of selected surgeries (as defined in Appendix A, Table 5.10 for ICD-9-CM codes).

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

Excluded Populations:

- Patients less than 18 years of age
- Patients who have a Length of Stay greater than 120 days
- Patients enrolled in clinical trials
- Patients whose ICD-9-CM principal procedure occurred prior to the date of admission
- Patients who expired during the perioperative period
- Pregnant patients taking a beta-blocker prior to arrival
- Patients with a documented Reason for Not Administering Beta-Blocker-Perioperative
- Patients with Ventricular Assist Devices or Heart Transplantation (as defined in Appendix A, Table 5.26 for ICD-9-CM codes)

S.11. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

Data Elements:

- Admission Date
- Anesthesia Start Date
- Anesthesia End Date

- Beta-Blocker Current Medication
- Beta-Blocker During Pregnancy
- Birthdate
- Clinical Trial
- Discharge Date
- ICD-9-CM Principal Procedure Code
- Perioperative Death
- Reason for Not Administering Beta-Blocker-Perioperative
- Sex

S.12. Stratification Details/Variables (All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)

No stratification

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

No risk adjustment or risk stratification

If other:

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

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

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

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

S.16. Type of score:

Rate/proportion

If other:

S.17. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.18. Calculation Algorithm/Measure Logic (Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)

SCIP-Cardiac (Card)-2: Surgery Patients on Beta-Blocker Therapy Prior to Arrival Who Received a Beta-Blocker During the Perioperative Period

Numerator: Surgery patients on beta-blocker therapy prior to arrival who received a beta-blocker during the perioperative period.

Denominator: All surgery patients on beta-blocker therapy prior to arrival.

Variable Key: Patient Age, Surgery Days, Postoperative LOS

1. Start processing. Run cases that are included in the Surgical Care Improvement Project (SCIP) Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Calculate Patient Age. The Patient Age, in years, is equal to the Admission Date minus the Birthdate. Use the month and day portion of admission date and birthdate to yield the most accurate age.
3. Check Patient Age

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- a. If Patient Age is less than 18 years, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- b. If Patient Age is greater than or equal to 18 years, continue processing and proceed to Clinical Trial.
4. Check Clinical Trial
- a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- c. If Clinical Trial equals No, continue processing and proceed to Anesthesia Start Date.
5. Check Anesthesia Start Date
- a. If the Anesthesia Start Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If the Anesthesia Start Date equals Unable To Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c. If Anesthesia Start Date equals a Non Unable To Determine Value, continue processing and proceed to the Surgery Days calculation.
6. Calculate Surgery Days. Surgery Days, in days, is equal to the Anesthesia Start Date minus the Admission Date.
7. Check Surgery Days
- a. If the Surgery Days is less than zero, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- b. If the Surgery Days is greater than or equal to zero, continue processing and proceed to check Perioperative Death.
8. Check Perioperative Death
- a. If Perioperative Death is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Perioperative Death equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- c. If Perioperative Death equals No, continue processing and proceed to ICD-9-CM Principal Procedure Code.
9. Check ICD-9-CM Principal Procedure Code
- a. If ICD-9-CM Principal Procedure Code is on Table 5.26 the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- b. If ICD-9-CM Principal Procedure Code is not on Table 5.26 continue processing and check for Beta-Blocker Current Medication.
10. Check Beta-Blocker Current Medication
- a. If the Beta-Blocker Current Medication is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If the Beta-Blocker Current Medication equals No, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
- c. If the Beta-Blocker Current Medication equals Yes, continue processing and proceed to Sex.
11. Check Sex
- a. If Sex is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If Sex equals Female, continue processing and check Beta-Blocker During Pregnancy.
1. If Beta-Blocker During Pregnancy is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
2. If Beta-Blocker During Pregnancy equals 1 or 3, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
3. If Beta-Blocker During Pregnancy equals 2, continue processing and proceed to Anesthesia End Date.
- c. If Sex equals Male or Unknown, continue processing and proceed to Anesthesia End Date.
12. Check Anesthesia End Date
- a. If the Anesthesia End Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
- b. If the Anesthesia End Date equals Unable To Determine, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
- c. If Anesthesia End Date equals a Non Unable To Determine Value, continue processing and proceed to the Postoperative Length Of Stay (LOS) calculation.

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13. Calculate Postoperative LOS. Postoperative LOS, in days, is equal to Discharge Date minus Anesthesia End Date.
14. Check Postoperative LOS
 - a. If Postoperative LOS is less than 2 days, continue processing and proceed to check Beta-Blocker Perioperative.
 - b. If Postoperative LOS is equal to or greater than 2 days, continue processing and proceed to Step 17 and check Beta-Blocker Perioperative
15. Check Beta-Blocker Perioperative
 - a. If Beta-Blocker Perioperative is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If any Beta-Blocker Perioperative equals 1 or 2, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - c. If no Beta-Blocker Perioperative equals 1 or 2 or Beta-Blocker Perioperative only equals 5, continue processing and proceed to Reason for Not Administering Beta-Blocker Perioperative.
16. Check Reason for Not Administering Beta-Blocker Perioperative
 - a. If Reason for Not Administering Beta-Blocker Perioperative is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If any Reason for Not Administering Beta-Blocker Perioperative equals 1 or 2, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - c. If no Reason for Not Administering Beta-Blocker Perioperative equals 1 or 2 or Reason for Not Administering Beta-Blocker Perioperative only equals 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
17. Check Beta-Blocker Perioperative
 - a. If Beta-Blocker Perioperative is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If any Beta-Blocker Perioperative equals 1 or 2, continue processing and proceed to Recheck Beta-Blocker Perioperative.
 - c. If no Beta-Blocker Perioperative equals 1 or 2 or Beta-Blocker Perioperative only equals 5, continue processing and proceed to Step 20 and check Reason for Not Administering Beta-Blocker Perioperative.
18. Recheck Beta-Blocker Perioperative
 - a. If any Beta-Blocker Perioperative equals 3 or 4, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - b. If no Beta-Blocker Perioperative equals 3 or 4, continue processing and proceed to check Reason for Not Administering Beta-Blocker Perioperative.
19. Check Reason for Not Administering Beta-Blocker Perioperative
 - a. If Reason for Not Administering Beta-Blocker Perioperative is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If any Reason for Not Administering Beta-Blocker Perioperative equals 3 or 4, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - c. If no Reason for Not Administering Beta-Blocker Perioperative equals 3 or 4 or Reason for Not Administering Beta-Blocker Perioperative only equals 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
20. Check Reason for Not Administering Beta-Blocker Perioperative
 - a. If Reason for Not Administering Beta-Blocker Perioperative is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If any Reason for Not Administering Beta-Blocker Perioperative equals 1 or 2, continue processing and proceed to Recheck Beta-Blocker Perioperative.
 - c. If no Reason for Not Administering Beta-Blocker Perioperative equals 1 or 2 or Reason for Not Administering Beta-Blocker Perioperative only equals 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
21. Recheck Beta-Blocker Perioperative
 - a. If any Beta-Blocker Perioperative equals 3 or 4, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - b. If Beta-Blocker Perioperative only equals 5, continue processing and Recheck Reason for Not Administering Beta-Blocker Perioperative.
22. Recheck Reason for Not Administering Beta-Blocker Perioperative
 - a. If any Reason for Not Administering Beta-Blocker Perioperative equals 3 or 4, the case will proceed to a Measure Category

Assignment of B and will not be in the Measure Population. Stop processing.

b. If no Reason for Not Administering Beta-Blocker Perioperative equals 3 or 4, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.

S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment (You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

S.20. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

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

The SCIP Topic Population (common to all SCIP measures) is defined as patients admitted to the hospital for inpatient acute care with an ICD-9-CM Principal Procedure Code for SCIP as defined in Appendix A, Table 5.10 and a Length of Stay (Discharge Date - Admission Date) <= 120 days. There are eight distinct strata or sub-populations within the SCIP Topic Population, each identified by a specific group of procedure codes. The patients in each stratum are counted in the Initial Patient Population of multiple measures.

The following sample size tables for each option automatically build in the number of cases needed to obtain the required sample sizes.

Quarterly Sampling

For hospitals selecting sample cases for SCIP, a modified sampling procedure is required. Hospitals selecting sample cases for this set must ensure that each individual stratum's population and quarterly sample size meets the following conditions:

- Select within each of the seven individual measure stratum (e.g., colorectal surgery, hip arthroplasty, etc.) and the 8th SCIP stratum (Table 5.25 in Appendix A).

Quarterly Sample Size

Based on Initial Patient Population Size for the SCIP Measure Set

Hospital's Measure

Average Quarterly

Stratum Initial Patient Population Size

"N" Minimum Required

Stratum Sample Size

"n"

>/= 481 49

171-480 10% of Initial Patient Population size

17-170 17

< 17 No sampling; 100% Initial Patient Population required

Monthly Sampling

For hospitals selecting sample cases for SCIP, a modified sampling procedure is required. Hospitals selecting sample cases for this set must ensure that each individual strata population and monthly sample size meets the following conditions:

- Select within each of the seven individual measure stratum (e.g., colorectal surgery, hip arthroplasty, etc.) and the 8th SCIP stratum (Table 5.25 in Appendix A).

Monthly Sample Size

Based on Initial Patient Population Size for the SCIP Measure Set

Hospital's Measure

Average Monthly

Stratum Initial Patient Population Size

"N" Minimum Required

Stratum Sample Size

"n"

>= 151 16
 61-150 10% of Initial Patient Population size
 6-60 6
 <6 No sampling; 100% Initial Patient Population required

All of the SCIP measures' specific exclusion criteria are used to filter out cases that do not belong in the measure denominator. Using SCIP-Inf-4 as an example, include cases covering all sampled strata, although the measure-specific exclusion criteria would only allow cases in the cardiac surgery stratum to be included in the denominator.

S.21. Survey/Patient-reported data (If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)

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

S.22. Missing data (specify how missing data are handled, e.g., imputation, delete case.)

Required for Composites and PRO-PMs.

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

If other, please describe in S.24.

Claims, Paper Medical Records

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

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

Vendor tools (electronic) or CART. CART is available for download free at

<http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138900279093>

S.25. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

URL

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

Facility, Other, Population : Regional and State

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

Inpatient/Hospital

If other:

S.28. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

2a. Reliability – See attached Measure Testing Submission Form

2b. Validity – See attached Measure Testing Submission Form

[0284_MeasureTesting_MS5.0_Data.doc](#)

3. Feasibility

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

3a. Byproduct of Care Processes

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

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

Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

If other:

3b. Electronic Sources

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

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

No

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.

There are several inpatient measures being retooled for EHR use. This measure is not included in that list for near future retooling.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.

Attachment:

3c. Data Collection Strategy

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

3c.1. Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

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

There have been no implementation issues identified.

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

4. Usability and Use

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

4a. Accountability and Transparency

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

4.1. Current and Planned Use

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

Planned	Current Use (for current use provide URL)
Payment Program	
Regulatory and Accreditation Programs	

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

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

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

4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

4b. Improvement

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

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

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

- Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)
- Geographic area and number and percentage of accountable entities and patients included

4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4c. Unintended Consequences

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

4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

[No unintended consequences reported with this measure.](#)

5. Comparison to Related or Competing Measures

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

5. Relation to Other NQF-endorsed Measures

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

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

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

5a. Harmonization

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

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

Are the measure specifications completely harmonized?

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

5b. Competing Measures

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

OR

Multiple measures are justified.

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

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

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): Centers for Medicare & Medicaid Services

Co.2 Point of Contact: Helen, Dollar-Maples, Helen.Dollar-Maples@cms.hhs.gov, 410-786-7214-

Co.3 Measure Developer if different from Measure Steward: Centers for Medicare & Medicaid Services

Co.4 Point of Contact: Kristie, Baus, kristie.baus@cms.hhs.gov, 410-786-8161-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

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

#0284 Surgery Patients on Beta-Blocker Therapy Prior to Arrival Who Received a Beta-Blocker During the Perioperative Period, Last Updated: May 06, 2016

<p>in measure development.</p> <p>The Surgical Care Improvement Project's TEP is facilitated by OFMQ for CMS and a list is available. The leading guideline author (Lee Fleisher, MD) from the ACC/AHA was instrumental in the development and maintenance of this measure.</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance</p> <p>Ad.2 Year the measure was first released: 2006</p> <p>Ad.3 Month and Year of most recent revision: 10, 2010</p> <p>Ad.4 What is your frequency for review/update of this measure? Every 6 months</p> <p>Ad.5 When is the next scheduled review/update for this measure? 04, 2011</p>
<p>Ad.6 Copyright statement: Trend Report (BM= Benchmark, rate = national score)</p> <p>Q209 BM: 99.7 Rate: 90.5</p> <p>Q309 BM: 99.7 Rate 91.5</p> <p>Q409 BM: 99.8 Rate 92.5</p> <p>Q110 BM: 99.8 Rate 93.1</p> <p>Q210 BM: 99.7 Rate 93.8</p> <p>Ad.7 Disclaimers:</p>
<p>Ad.8 Additional Information/Comments:</p>