**NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE**

Measure Information Form

Measure Set: Surgical Care Improvement Project (SCIP)

Set Measure ID#: SCIP-Card-2

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

Description: Surgery patients on beta-blocker therapy prior to arrival who received a beta-blocker during the perioperative period. The perioperative period for the SCIP Cardiac measures is defined as 24 hours prior to surgical incision through discharge from post-anesthesia care/recovery area.

Rationale: 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. The American College of Cardiology/American Heart Association site continuation of beta-blocker therapy in the perioperative period as a class I indication, and accumulating evidence suggests that titration to maintain tight heart rate control should be the goal.

Type of Measure: Process

Improvement Noted As: An increase in the rate.

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

Included Populations: Not applicable

Excluded Populations: None
Data Elements:
*Beta-Blocker Perioperative*

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

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

**Excluded Populations:**
- Patients less than 18 years of age
- Patients who have a length of Stay >120 days
- 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 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*

**Data Elements:**
- *Admission Date*
- *Anesthesia Start Date*
- *Beta-Blocker Current Medication*
- *Beta-Blocker During Pregnancy*
- *Birthdate*
- *Clinical Trial*
- *Discharge Date*
- *ICD-9-CM Principal Procedure Code*
- *Laparoscope*
- *Perioperative Death*
- *Reason for Not Administering Beta-Blocker-Perioperative*
- *Sex*

**Risk Adjustment:** No

**Data Collection Approach:** Retrospective data sources for required data elements include administrative data and medical records.

**Data Accuracy:** Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.
**Measure Analysis Suggestions:** This measure seeks to identify surgery patients who were on beta-blocker therapy prior to arrival that received a perioperative beta-blocker. Health care organizations can identify patients who were on beta-blocker therapy for an extended period of time and compare them to those who received beta-blockers perioperatively, or those who did not receive the medication due to other reasons, i.e., complications or early discharges. An additional step would be to correlate the post hospital stay period to the beta-blocker administration during the pre/perioperative period. This will allow health care organization to take appropriate steps to ensure that patients receive the necessary care to reduce the risk of cardiovascular complications in the postoperative period.

**Sampling:** Yes, for additional information see the Population and Sampling Specifications Section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**


SCIP-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 receive a beta-blocker during the perioperative period.

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

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**Variable Key:**
- Patient Age
- Surgery Days

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### START

- Rate cases that are included in the SCIP Initial Patient Population and pass the edits defined in the Data Processing Flow through this measure.

### Patient Age (in years) - Admission Date - Birthdate

- Use the month and day portion of admission date and birthdate to yield the most accurate age.

### Card 2

- Missing

### Laparoscopy

- \( \geq 1.5 \) years

### Card 2

- Missing

### Clinical Trial

- \( \geq Y \)

### Card 2

- Missing

### Anesthesia Start Date

- Non-UTD Value

### Surgery Days (in days) = Anesthesia Start Date - Admission Date

### Card 2

- \( \leq 0 \)

### Card 2

- Missing

### Perioperative Death

- \( \geq Y \)

### Card 2

- Missing

### Beta-Blocker Current Medication

- \( \neq Y \)

### Card 2

- \( \neq Y \)