Measure #44 (NQF 0236): Coronary Artery Bypass Graft (CABG): Preoperative Beta-Blocker in Patients with Isolated CABG Surgery – National Quality Strategy Domain: Effective Clinical Care

2015 PQRS OPTIONS FOR INDIVIDUAL MEASURES: CLAIMS, REGISTRY

DESCRIPTION:
Percentage of isolated Coronary Artery Bypass Graft (CABG) surgeries for patients aged 18 years and older who received a beta-blocker within 24 hours prior to surgical incision

INSTRUCTIONS:
This measure is to be reported each time an isolated CABG procedure is performed during the reporting period. It is anticipated that eligible professionals who provide services for isolated CABG will submit this measure. The timeframe for this measure includes the entire 24 hour period prior to the surgical incision time.

Measure Reporting via Claims:
CPT codes and patient demographics are used to identify patients who are included in the measure’s denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting the measure via claims, submit the listed CPT codes, and the appropriate CPT Category II code OR the CPT Category II code with the modifier. The modifiers allowed for this measure are: 1P- medical reasons, 8P- reason not otherwise specified. All measure-specific coding should be reported on the claim(s) representing the eligible encounter.

Measure Reporting via Registry:
CPT codes and patient demographics are used to identify patients who are included in the measure’s denominator. The listed numerator options are used to report the numerator of the measure.

The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
Isolated CABG surgeries for patients aged 18 years and older

Definitions:
Isolated CABG- Refers to CABG using arterial and/or venous grafts only. Part B claims data will be analyzed to determine “isolated” CABG.

DENOMINATOR NOTE: In order to ensure the only surgeries allowed into the denominator for the measure are isolated CABG surgeries, the anesthesiologist CPT code (00562) (which is not specific to isolated CABG), would need to be in conjunction with the CPT indicated for the CABG surgery (33530) and one of the other CABG codes (33510, 33511, 33512, 33513, 33514, and 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536)

Denominator Criteria (Eligible Cases): Patients aged ≥ 18 years on date of encounter AND Patient encounter during the reporting period (CPT): 00566, 00567, 33510, 33511, 33512, 33513, 33514, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536 OR Patient encounter during the reporting period (CPT): 33510, 33511, 33512, 33513, 33514, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536 AND Patient encounter during the reporting period (CPT): 00562, 33530

NUMERATOR:
Patients who received a beta-blocker within 24 hours prior to surgical incision of isolated CABG surgeries

Definitions:
Medical Reason - Eligible professional must document specific reason(s) for not administering beta-blockers.

Numerator Quality-Data Coding Options for Reporting Satisfactorily:
Preoperative Beta-blocker Administration Documented Performance Met: CPT II 4115F: Beta blocker administered within 24 hours prior to surgical incision
OR Preoperative Beta-blocker not Administered for Documented Medical Reasons

**Medical Performance Exclusion: 4115F with 1P:** Documentation of medical reason(s) for not administering beta blocker within 24 hours prior to surgical incision (eg, not indicated, contraindicated, other medical reason)

OR Preoperative Beta-blocker not Received, Reason not Otherwise Specified

**Performance Not Met: 4115F with 8P:** Beta blocker not administered within 24 hours prior to surgical incision, reason not otherwise specified

**RATIONALE:**
Postoperative atrial fibrillation (POAF) is a common complication following cardiac surgery, occurring in 25-40% of patients (Crystal, 2004, Burgess, 2006). POAF has been associated with increased rates of postoperative morbidity and mortality and consequently, increased costs (Mariscalco, 2008, Crystal, 2004, Bramer, 2010). Prophylactic administration of beta-blockers have been shown to reduce the risk of POAF and mortality following isolated coronary artery bypass graft surgery (Connolly, 2003, Mariscalco, 2008, Ferguson, 2002). Khan’s meta-analysis of RCTs found that "Preoperative BB initiation resulted in 52% reduction in the incidence of AF as compared to controls, however these results were not statistically significant." ElBardissi (2012) showed a 19.5% increase in preoperative use of beta-blockers from 2000-2009.

Coronary revascularization, comprising coronary artery bypass graft (CABG) surgery and percutaneous coronary intervention (PCI), is among the most common major medical procedures provided by the US health care system, with more than 1 million procedures performed annually. It is also among the most costly procedures. Medicare inpatient payments to hospitals for coronary revascularizations exceeded $6.7 billion in fiscal year 2006 and is larger than the reimbursement for any other medical or surgical procedure (Epstein, 2011).

**CLINICAL RECOMMENDATION STATEMENTS:**

Preoperative Beta-blockers:

Class I
1. Beta-blockers should be administered for at least 24 hours before CABG to all patients without contraindications to reduce the incidence or clinical sequelae of postoperative AF. *(Level of Evidence: B), (ACCF/AHA, 2011)*

Class IIa
1. Preoperative use of beta-blockers in patients without contraindications, particularly in those with an LV ejection fraction (LVEF) greater than 30%, can be effective in reducing the risk of in-hospital mortality. *(Level of Evidence: B), (ACCF/AHA, 2011)*

2. Beta-blockers can be effective in reducing the incidence of perioperative myocardial ischemia. *(Level of Evidence: B), (ACCF/AHA, 2011)*

Class IIb
1. The effectiveness of preoperative beta-blockers in reducing in-hospital mortality rate in patients with LVEF less than 30% is uncertain. *(Level of Evidence: B), (ACCF/AHA, 2011)*