♠ Measure #44 (NQF 0236): Coronary Artery Bypass Graft (CABG): Preoperative Beta-Blocker in Patients with Isolated CABG Surgery

2014 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 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
CPT II 4115F: Beta blocker administered within 24 hours prior to surgical incision

OR

Preoperative Beta-blocker not Administered for Documented Medical Reasons
Append a modifier (1P) to the CPT Category II code 4115F to report documented circumstances that appropriately exclude patients from the denominator.
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
Append a reporting modifier (8P) to CPT Category II code 4115F to report circumstances when the action described in the numerator is not performed and the reason is not otherwise specified.
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 post-operative 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 (Medicare inpatient payments to hospitals for coronary revascularizations exceeded $6.7 billion in fiscal year 2006, an amount 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)