

2024 Pay for Performance Measure Specifications

Adult Cardiac Surgery

2024 Collaborative-wide Quality Initiative:

Isolated CABG – Initial Ventilator Hours <6

Description

Percentage of patients undergoing isolated CAB with less than 6.0 initial postoperative ventilation hours.

Rationale

Evidence has shown that early extubation offers a range of benefits, including a reduced risk of ventilator-associated complications, faster recovery, decreased ICU costs, lower risk of delirium and enhanced patient satisfaction¹⁻³. While early extubation focuses on immediate postoperative benefits, it may also contribute to improved long-term outcomes.

Measurement Time Period

January 1, 2024 – December 31, 2024

Inclusion Criteria

All Isolated CABG cases

Exclusion Criteria

- Patients who expired in the OR

Variables used in Numerator

Total Postop Initial Vent Hours (#6587) <6.0 (includes patients #6585 Extubated in OR = Yes)

2024 Value-Based Reimbursement Measurement Specifications

Adult Cardiac Surgery

2024 Value-Based Reimbursement Measure #1: Multiple Arterial Grafting for Patients <70 Years Old

Description

Percentage of patients less than 70 years old undergoing isolated CAB who receive two or more distal anastomoses using an arterial conduit.

Rationale

Evidence has shown that multiple arterial grafting using the internal mammary and radial arteries during coronary artery bypass surgery improves long-term survival⁴. Patients receiving arterial grafts experience lower rates of recurrent angina, lower rates of myocardial infarction, and lower rates for the need for repeat revascularization. Current guidelines from U.S. and European societies encourage the use of multiple arterial grafting in patients who have anticipated long-life expectancy⁵⁻⁸.

Measurement Time Period

January 1, 2024 – September 30, 2024

Inclusion Criteria

All Isolated CAB cases less than 70 years old

Exclusion Criteria

- Patients with previous CAB (#670)
- Patients with one bypass graft (#2770)
- Emergent and Emergent Salvage case status (#1975)
- IMA was not used for one of the following reasons: (#2629)
 - Subclavian stenosis
 - Previous cardiac or thoracic surgery
 - Previous mediastinal radiation
 - Emergent or Salvage procedure
 - No LAD disease

Variables used in Numerator

Total Number of Distal Anastomoses with Arterial Conduits (#2631) (>=2)

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2024 Value-Based Reimbursement Measure #2:
Intraoperative Glucose Management

Description

Percentage of all risk adjusted procedure patients whose highest intraoperative glucose is <180 mg/dl.

Rationale

Acute hyperglycemia in the perioperative period is known to increase the incidence of wound infections, overall mortality, length of stay, acute kidney injury, and delayed wound healing.^{9-16,19} Use of insulin to correct perioperative hyperglycemia decreases the risk of hospital complications and mortality in cardiac and general surgery patients.^{16,17} The American Association of Clinical Endocrinologists and American Diabetes Association recommend a treatment threshold of 180 mg/dL in critically ill hospitalized patients and a preprandial blood glucose goal of 140 mg/dL in non-critically hospitalized ill patients.¹⁸

Measurement Time Period

January 1, 2024 – September 30, 2024

Inclusion Criteria

All Risk Adjusted Procedures

Exclusion Criteria

- Patients with missing intraoperative highest glucose (#2320)

Variables used in Numerator

Highest Intra-Op Glucose (SEQ #2320) (<180)

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2024 Value-Based Reimbursement Measure #3:

Assessment and Documentation of Clinical Frailty Score for All Non-Emergent Cardiac Surgery Patients

Description

Percentage of all non-emergent cardiac surgery patients with a documented Clinical Frailty Score (CFS).

Rationale

Frailty has been associated with a higher likelihood of experiencing mortality, morbidity, functional decline, and MACCE following cardiac surgery²⁵. Use of a validated Clinical Frailty Score²⁶ may provide additional insight into the relationship between frailty and cardiac surgery outcomes, leading to the development of interventions to improve outcomes for frail patients¹⁹. CFS-guided care may reduce healthcare costs by identifying and addressing frailty early, thereby preventing complications, readmissions, and the need for prolonged care²⁰.

Measurement Time Period

January 1, 2024 – September 30, 2024

Inclusion Criteria

- All STS elective and urgent status cardiac surgery patients (#1975)

Exclusion Criteria

- Patients with emergent or emergent salvage operative status (#1975)
- Patients undergoing a transcatheter procedure (#3400, #3501, #3610, #3637, #3652, #3695, #4953)

Variables used in Numerator

Clinical Frailty Score (CFS) documented in the medical record, captured, and submitted to MSTCVS QC.

<https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale.html>

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