California Cardiovascular Outcomes Reporting Program (CCORP)

Coronary Artery Bypass Graft (CABG) Data
2023 Data - Abstractor Training
Selected Data Elements

Department of Health Care Access and Information

Agenda

- Welcome and Introductions
- Reminder of Statute, Regulations and Due Dates
- Information sources
- Administrative data elements (and a few others)
  - presented by HCAI
- Challenging data elements
  - presented by Dr. Matchison
- Session will be records and posted on HCAI website
- Any significant clarifications discussed during the training will be added to the training manual

Statute and Due Dates

- California Health and Safety Code
  - HCAI shall publish at least one risk-adjusted cardiovascular procedure outcome report
  - HCAI shall require hospital reports of necessary data
  - Clinical Advisory Panel advise on data elements to collect
  - Allows for data audits
- California Code of Regulations
  - Requires all CABG hospitals to submit Data to HCAI
  - Outlines data elements
  - Dues dates
    - January – June 2023 Due September 28, 2023
    - July – December 2023 Due April 1, 2024
  - Extensions allowed with reasonable justifications

Information Sources

- CCORP webpage
  - https://hcai.ca.gov/data-and-reports/submit-data/coronary-artery-bypass-grafts/
- Cardiac Online Reporting for California (CORC)
  - https://corc.hcai.ca.gov/
  - Data collection system
  - Allows for uploading documents
- CCORP Hotline **(916) 326-3865**
  - Answered Monday-Friday during business hours
- CCORP Email CCORP@HCAI.CA.GOV

Administrative Data Elements
Presented by HCAI

Department of Health Care Access and Information

17. Hospital Discharge Date

- Indicate the date the patient was discharged from the hospital (acute care) even if the patient is going to a rehab or hospice or similar extended care unit within the same physical facility. If the patient died in the hospital, the discharge date is the date of death.
- Valid Values
  - mmddyyyy
- Do not include transfers to other service units, such as renal care unit. If the patient is discharged (given a new account number) to hospice care but remains in the same bed/unit, the discharge date is that date. If the patient is discharged (given a new account number) to a psychiatric or rehab unit, even if located in the same building, the discharge date is that date.
- **CCORP Clarification: Enter the date the patient was discharged from the hospital where the CABG was performed.**

18. Status at Hospital Discharge

Indicate the patient's status at hospital discharge.

- Valid Values:

3 = Discharged Alive, last known status alive (other than Hospice)

4 = Discharged Alive, died after discharge

5 = Discharged to Hospice*

2 = Died in hospital

*HCAI does not automatically consider Discharge to Hospice as a death

19. Patient Transfer to Another Acute Hospital

Indicate if the patient was transferred to another acute care hospital.

- Valid Values:
  - 1 = Yes
  - 2 = No

STS Update – Acute Care Rehabilitation is not considered an acute care inpatient hospital. Patients discharged to Acute Care Rehabilitation are considered to be discharged from the acute care inpatient hospital setting, even if the Acute Care Rehabilitation occurs at the same hospital as the acute care inpatient hospital stay.

20. Patient Transfer to Acute Care Hospital-Date

Indicate the date the patient was transferred to another acute care hospital.

- Valid Value:
  - mmddyyyy

21. Mortality Date

Indicate the date the patient was declared dead.

- Valid Values:
  - Mmddyyyy

If the date of death after discharge is known, please enter it.

39. Peripheral Arterial Disease

- Indicate whether the patient has a history of peripheral arterial disease (includes upper and lower extremity, renal, mesenteric, and abdominal aortic systems). This can include:
  i. Claudication, either with exertion or at rest.
  ii. Amputation for arterial vascular insufficiency.
  iii. Vascular reconstruction, bypass surgery, or percutaneous intervention to the extremities (excluding dialysis fistulas and vein stripping).
  iv. Documented aortic aneurysm with or without repair.

- Valid Values
  - 1 = Yes
  - 2 = No
  - 3 = Unknown

Intent/Clarification: PAD (Peripheral Arterial Disease) is sometimes called PVD (Peripheral Vascular Disease), which can include disease of either peripheral vein or peripheral artery. Code only arterial disease, not venous disease.

39. Peripheral Arterial Disease (cont)

- Peripheral Arterial Disease(PAD) excludes disease in the carotid, cerebrovascular arteries, or thoracic aorta. PVD does not include DVT, pulmonary artery aneurysm, Raynaud's Disease, AVM, Thurner syndrome, or Buerger's disease.

- STS Update July 2023 - All peripheral artery aneurysms (upper and lower extremity, renal, mesenteric, and abdominal aortic systems) are coded as PAD.

CCORP scenario
Q. PAD noted in the H&P, however, no diagnostic testing in the chart.
A. Code Yes to PAD based on this limited documentation.

Challenging Data Elements
Presented by HCAI's Consulting Cardiologist
Dr. Chris Matchison

HCAI Department of Health Care Access and Information

Reminder of Medical Chart Sources to Abstract

- History and physical
- Discharge summary
- Cardiac catheterization report
- Echocardiogram report
- CABG operative report
- Pre-op consult notes- especially cards/ cv surgery

Type of CABG

- Indicate whether the surgery was considered an isolated CABG, CABG + Valve, or other non-isolated CABG
  Other non-isolated must include a CABG (not isolated valve).
- Valid Values
  - 1=Isolated CABG
  - 3= CABG + Valve
  - 4=Other Non-Isolated CABG
- Exclusions to Isolated CABG and CABG + Valve - It is not possible to list all exclusions because cases can be complex and clinical definitions are not always precise. When in doubt, the data abstractor should first seek an opinion from the responsible surgeon and then consult CCORP.

Type of CABG (cont.)

- Exclusions from Isolated CABG:
  - Valve repair or replacement
  - operations on structures adjacent to heart valves (papillary muscle, chordae tendineae, traebeculae carneae cordis, annuloplasty, infundibulectomy)
  - Ventriculectomy when diagnosed preoperatively as a rupture, aneurysm or remodeling procedure.
    - But not
      1) sites intra-operatively diagnosed
      2) patch applications for site oozing discovered during surgery
      3) prophylactic patch applications to reduce chances of future rupture
  - Repair of atrial and ventricular septa, but not closure of patent foramen ovale
  - Excision of aneurysm of heart
  - Head and neck, intracranial endarterectomy

Type of CABG (cont.)

- Other open heart surgeries, such as aortic arch repair, pulmonary endarterectomy
- Endarterectomy of aorta
- Thoracic endarterectomy (endarterectomy on an artery outside the heart)
- Carotid endarterectomy
- Heart transplantation
- Repair of certain congenital cardiac anomalies, but not closure of patent foramen ovale (e.g., teratology of fallot, atrial septal defect (ASD), ventricular septal defect (VSD), valvular abnormality)
- Any aortic aneurysm repair (abdominal or thoracic)
- Aorta-subclavian-carotid bypass
- Aorta-renal bypass
- Aorta-iliac-femoral bypass

Type of CABG (cont.)

- Caval-pulmonary artery anastomosis
- Extracranial-intracranial (EC-IC) vascular bypass
- Coronary artery fistula
- Resection of a lobe or segment of the lung (e.g., lobectomy or segmental resection of lung). But not simple biopsy of lung nodule in which surrounding lung is not resected, biopsy of a thoracic lymph node or excision or stapling of an emphysematous bleb.
- Mastectomy for breast cancer (not simple breast biopsy)
- Amputation of any extremity (e.g., foot or toe)
- Planned Ventricular Assist Device (VAD) for long term treatment
- Septal myectomy with hypertrophic obstructive cardiomyopathy
- Pleural decortication
- Resection of LV aneurysm
- Full open mazes
- Repair of aortic dissection

Type of CABG (cont.)

- CABG + Valve incudes:
  - CABG + Aortic Valve replacement (AVR)
    - Replacements ONLY, DO NOT include root replacements (Bentall)
  - CABG + Mitral Valve replacement (MVR)
  - CABG+ Mitral Valve repair (MVRepair)
  - CABG + AVR with MVR or MVRepair

Type of CABG (cont.)

- Exclusions from CABG +Valve:
  - Aortic Valve repair
  - Aortic Valve root replacement with valve conduit (Bentall)
  - Pulmonic Valve Procedure
  - Tricuspid Valve Procedure
  - Ventriculectomy when diagnosed preoperatively as a rupture, aneurysm or remodeling procedure. But not 1) sites intra-operatively diagnosed, 2) patch applications for site oozing discovered during surgery and 3) prophylactic patch applications to reduce chances of future rupture
  - Repair of atrial and ventricular septa, excluding closure of patent foramen ovale
  - Excision of aneurysm of heart
  - Head and neck, intracranial endarterectomy
  - Other open heart surgeries, such as aortic arch repair, pulmonary endarterectomy
  - Endarterectomy of aorta

Type of CABG (cont.)

- Thoracic endarterectomy (endarterectomy on an artery outside the heart)
- Carotid endarterectomy
- Heart transplantation
- Repair of congenital cardiac anomalies, such as tetralogy of fallot, atrial septal defect (ASD), ventricular septal defect or other complex anomaly
- Any aortic aneurysm repair (abdominal or thoracic)
- Repair of aortic dissection
- Aorta-subclavian-carotid bypass
- Aorta-renal bypass
- Aorta-iliac-femoral bypass
- Caval-pulmonary artery anastomosis
- Extracranial-intracranial (EC-IC) vascular bypass
- Coronary artery fistula

Type of CABG (cont.)

- Resection of a lobe or segment of the lung (e.g., lobectomy or segmental resection of lung). But not simple biopsy of lung nodule in which surrounding lung is not resected, biopsy of a thoracic lymph node or excision or stapling of an emphysematous bleb.
- Pleural decortication
- Mastectomy for breast cancer (not simple breast biopsy)
- Amputation of any extremity (e.g., foot or toe)
- Resection of LV aneurysm
- Planned Ventricular Assist Device (VAD) for long term treatment
- Infundibulectomy
- Septal myectomy with hypertrophic obstructive cardiomyopathy
- Full Open MAZE for Aortic Valve cases only (epicardial MAZE procedures are not excluded and Full Open MAZE procedures for Mitral Valve are also coded as CABG + Valve).

Type of CABG (additional valve related information)

- Anterior mitral leaflet endarterectomy/decalcification is considered part of the AVR and should not be coded as a mitral valve procedure.
- An aortic endarterectomy is considered part of the AVR procedure and should not be coded elsewhere.
- Aortoplasty done in conjunction with AVR to reduce the size of the ascending aorta is considered part of the closure and is not coded as an additional procedure.
- Aortic resection to merely remove excessive aortic tissue prior to aortoplasty is considered part of the closure and is not coded as an additional procedure.
- Wrapping the dilated portion of the aorta to reinforce it does not constitute an "other or aorta" procedure when done in conjunction with an AVR.

Type of CABG (additional valve related information)

- Note: Patient had an AVR for endocarditis. The surgeon also performed unroofing of the mitral valve sub annular abscess. Don't code the unroofing of the mitral valve sub annular abscess. This is part of the AVR for endocarditis.
- Aortoplasty done in conjunction with MVR is considered part of the closure and is not coded as an additional procedure.
- An MVR with reconstruction of the atrium with atrioplasty is a technical addition and is coded only as an MVR

33. Chronic Lung Disease

Indicate whether the patient has chronic lung disease, and the severity level according to the following classification:

- Valid Values
  - 1 = No
  - 2 = Mild
    - FEV1 60% to 75% of predicted, and/or chronic inhaled or oral bronchodilator therapy.
  - 3 = Moderate
    - FEV1 50% to 59% of predicted, and/or on chronic oral/ systemic steroid therapy aimed at lung disease.
  - 4 = Severe
    - FEV1 <50% predicted, and/or Room Air pO2 < 60 or pCO2 > 50.
  - 5 = Lung disease documented, severity unknown
    - Chronic lung disease present, severity not documented (lung disease documented but severity unknown).
  - 6 = Unknown

Chronic Lung Disease (cont.)

- The diagnosis of chronic lung disease is not based solely on the fact that a person has or currently is smoking, or is on home oxygen.
- Diagnostic testing and or pharmacological criteria must be met.
- Chest x-ray findings alone are not included in the data specs for inclusion as chronic lung disease and should not be coded as “Yes”.

Chronic Lung Disease (cont.)

- Chronic lung disease can include patients with chronic obstructive pulmonary disease, chronic bronchitis, or emphysema. It can also include a patient who is currently being chronically treated with inhaled or oral pharmacological therapy (e.g., beta-adrenergic agonist, anti-inflammatory agent, leukotriene receptor antagonist, or steroid). Patients with asthma or seasonal allergies are not considered to have chronic lung disease.
- Intent/Clarification:
- STS Update - The DLCO can be used to determine the severity of lung disease. The lowest % predicted of either the simple DLCO or DLCO/VA uncorrected should be captured:
- Mild: DLCO or DLCO/VA >60% of predicted and < lower limit of normal.
- Moderate: DLCO or the DLCO/VA 40-60% of predicted.
- Severe: DLCO or the DLCO/VA <40% of predicted.

Chronic Lung Disease (cont.)

- Patients with chronic or extensive exposure to environmental dusts/chemicals (asbestosis, black lung disease or pneumoconiosis, etc.) may qualify as having chronic lung disease based on an established diagnosis resulting from formal pulmonary evaluation.
- Similarly, prior lung radiation therapy typically results in radiation pneumonitis (acutely) and radiation fibrosis (chronically) and also qualifies as chronic lung disease, provided pulmonary function testing is not normal."
- For CCORP purposes, patients with chart documentation of chronic lung disease treated with chronic home oxygen may be considered severe in the absence of PFT or ABG data.

Chronic Lung Disease (cont.)

- CCORP Clarification March 2023: In discussions with STS, they strongly suggest that data managers work with the surgeon and pulmonologist (assuming one is consulted with a low FEV1) to reconcile any charting discrepancies or to provide a physician diagnosis during bedside PFTs.

BOTTOM LINE: The definition requires:

1) documentation of a diagnosis of chronic pulmonary disability

2) Patients do NOT have COPD merely on the basis of a heavy smoking history or being labeled “COPD” in the chart without PFTs or history of prior therapy for COPD. Severity is determined by severity of PFT abnormality or type of chronic therapy.

36. Immunocompromised Present

- Indicate whether Immunocompromise is present due to immunosuppressive medication therapy within 30 days preceding the operative procedure or existing medical condition.
- This includes, but is not limited to systemic steroid therapy, anti-rejection medications and chemotherapy.
- This does not include topical steroid applications, one-time systemic therapy, inhaled steroid therapy, pre-operative protocol, steroidal back or knee injections for chronic pain or anabolic steroids.
- Valid Values
  - 1 = Yes
  - 2 = No
  - 3 = Unknown

Immunocompromised Present (cont.)

- Medications include but are not limited to patients being treated with IVIG, Methotrexate, AntiTNF, Azasan, Imuran, and Hydroxurea.
- **STS Update** Interleukin-17 inhibitors to include Secukinumab Ixekizumab and Brodalumab and Interleukin-23 inhibitors to include ustekinumab, guselkumab, tildrakizumab, and Risankizumab. STS Update patients taking Ocrelizumab (IV every 6 months) can be coded as YES to immunocompromised since Ocrelizumab significantly depletes B Cells for 6-12 months.

Immunocompromised Present (cont.)

- Include patients being treated with IVIG, Methotrexate, AntiTNF, Azasan, Imuran, and Hydroxurea. Patients who have had splenectomy are considered immunocompromised. Examples of conditions causing immunocompromise include Hypogammaglobulinemia, HIV infection, HGB H disease Thalassemia, patients with systemic lupus or rheumatoid arthritis who are taking Plaquenil QD.
- Examples of patients who are not considered immunocompromised include:
- Splenic sequestration
- Partial Splenectomy - partial splenectomy may reduce both short and long-term mortality by preserving immune system functioning.
- Patient with IgG4 related sclerosing disease
- Code “Unknown” when there is conflicting information in the medical record and/or with the patient/family and/or patient/family unable to provide history. Code unknown if the patient has used immunosuppressive medication therapy, but you do not know if it was within 30 days of surgery

40. Cerebrovascular Disease

- Indicate whether the patient has a current or previous history of any of the following:
  - Stroke: an acute episode of focal or global neurological dysfunction caused by brain, spinal cord, or retinal vascular injury, as a result of hemorrhage or infarction, where the neurological dysfunction lasts for greater than 24 hours.
  - TIA: a transient episode of focal neurological dysfunction caused by brain, spinal cord, or retinal ischemia, without acute infarction, where the neurological dysfunction resolves within 24 hours.
  - Non-invasive or invasive arterial imaging test demonstrating >=50% stenosis of any of the major extracranial or intracranial vessels to the brain.
  - Vertebral artery and internal carotid and intercranial consistent with atherosclerotic disease with document presence as CVD (Vertebral artery disease and/or internal carotid disease and/or intracranial disease => 50% stenosis).
  - External carotid disease is excluded.
  - Previous cervical or cerebral artery revascularization surgery or percutaneous intervention.
  - Brain/cerebral aneurysm.
  - Occlusion of vertebral artery, internal carotid artery, and intercranial due to dissection.
- Valid Values
  - 1 = Yes
  - 2 = No
  - 3 = Unknown

40. Cerebrovascular Disease (cont)

Intent/Clarification: Internal carotid and common carotid disease are captured. External carotid disease is not captured. A positive CT scan, even in the patient with no symptoms, should be coded as cerebral vascular disease. A CT scan following surgery with evidence of old infarct or chronic should be coded yes.

- Code "Unknown" when there is conflicting information in the medical record and/or with the patient/family and/or patient/family unable to provide history.
- STS Update disease at the carotid bifurcation can be captured.
- STS Update - Vertebral artery imaging test demonstrating >=50% stenosis can be captured.
- STS Update - Patient with prior left vertebral occlusions with distal reconstruction can be coded.
- Vertebral artery disease and/or internal carotid disease and/or intracranial disease => 50% stenosis, code Yes.

57. Prior Myocardial Infarction (MI)

- Indicate if the patient has had at least one documented previous myocardial infarction at any time prior to this surgery.

- Valid Values
  - 1 = Yes
  - 2 = No
  - 3 = Unknown

- Indicate if the patient has a history of MI. Provider documentation should indicate MI. Do not code slight troponin increase and no EKG changes alone as MI without confirmation in the medical record by a physician or physician extender. Do not use phrases such as “cannot rule out”, “suggestive”, “probable”, “cannot exclude”, etc. to code MI.

58. MI When

- Indicate the time period between the last documented myocardial infarction and surgery.

- Valid Values
  - 1 = ≤ 6 Hrs
  - 2 = > 6 Hrs but < 24 Hrs
  - 3 = 1 to 7 Days
  - 4 = 8 to 21 Days
  - 5 = > 21 Days

- Time of surgery is documented as the hour the patient entered the operating room. Select the time-interval category based on information available on when the MI occurred. MI occurrence is the time of diagnosis and/or when confirmation of the last MI is documented prior to surgery.

59. Heart Failure

- Indicate whether there is physician documentation or report that the patient has been in a state of heart failure.
- Valid Values
  - 1 = Yes
  - 2 = No
  - 3 = Unknown

61. Classification- New York Heart Assoc (NYHA)

- Indicate the patient's worst dyspnea or functional class, coded as the New York Heart Association (NYHA) classification documented by a MD/Provider within the past 2 weeks.

1 = *Class I*: Patient has cardiac disease, but without resulting limitations of ordinary physical activity. Ordinary physical activity (e.g., walking several blocks or climbing stairs) does not cause undue fatigue, palpitation, dyspnea.

2 = *Class II*: Patient has cardiac disease resulting in slight limitation of ordinary physical activity. Patient is comfortable at rest. Ordinary physical activity such as walking more than two blocks or climbing more than one flight of stairs results in limiting symptoms (e.g., fatigue, palpitation, dyspnea).

Classification -New York Heart Association (NYHA) (cont.)

3 = *Class III*: Patient has cardiac disease resulting in marked limitation of physical activity. Patient is comfortable at rest. Less than ordinary physical activity (e.g., walking one to two level blocks or climbing one flight of stairs) causes fatigue, palpitation, dyspnea.

4 = *Class IV*: Patient has dyspnea at rest that increases with any physical activity. Class IV Patient has cardiac disease resulting in inability to perform any physical activity without discomfort. Symptoms may be present even at rest or minimal exertion. If any physical activity is undertaken, discomfort is increased.

5 = Not Documented

62. Cardiogenic Shock

- Indicate if the patient developed cardiogenic shock. Cardiogenic shock is defined as a sustained (>30 min.) episode of hypoperfusion evidenced by systolic blood pressure <90 mm Hg and/or, if available, cardiac index <2.2 L/min per square meter determined to be secondary to cardiac dysfunction and/or the requirement for parenteral inotropic or vasopressor agents or mechanical support (e.g., IABP, extracorporeal circulations, VADS) to maintain blood pressure and cardiac index above those specified levels.
- Valid Values
  - 2 = No
  - 3 = Yes, at the time of procedure
  - 4 = Yes, not at the time of procedure but within prior 24 hours

At the time of the procedure is defined as entry into OR and <u>prior to induction of anesthesia</u>.

Do not code cardiogenic shock after induction.

Cardiogenic Shock (cont.)

- **CCORP SPECIFIC CLARIFICATION**: "Shock" = Yes if the patient:
  1) currently has SBP <90 mmHg or
  2) currently has a cardiac index <2.2 or
  3) previously had a SBP < 90 or cardiac index <2.2, but is currently on inotropes/IABP to maintain a higher BP or CI.
- Patients left on inotropes/IABP whose BP has markedly improved so that it is clear BP off therapy would be above criteria should be coded "No."
- Transient episodes of hypotension reversed with IV fluid or atropine do not constitute cardiogenic shock. The hemodynamic compromise (with or without extraordinary supportive therapy) must persist for at least 30 min.

- **CCORP requires documentation of all cases coded as "Yes". CORC will alert you.**

72. Number of Diseased Coronary Vessels

- Indicate the number of diseased major native coronary vessel systems.
- A vessel that has ever been considered diseased should always be considered diseased.

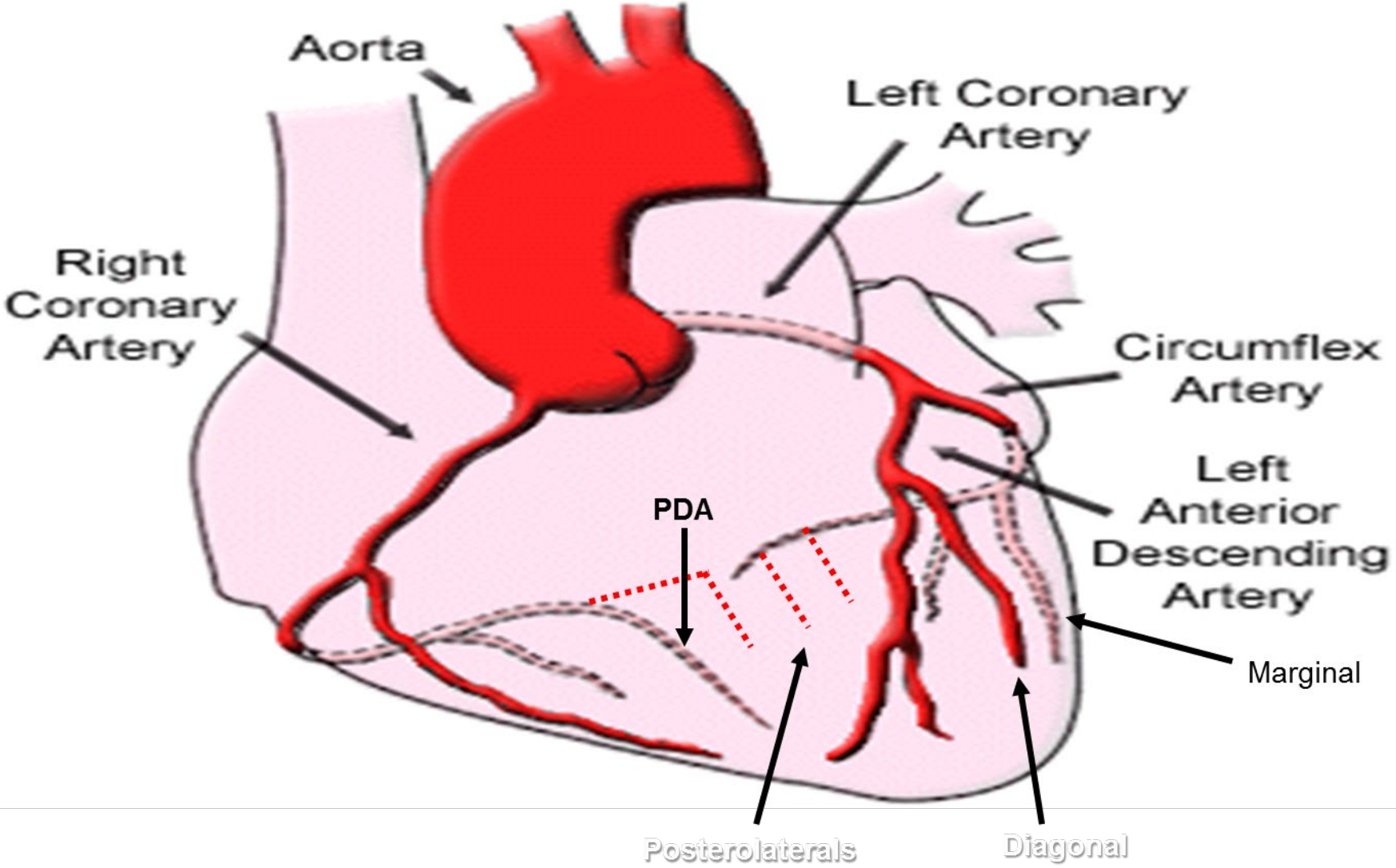
- Valid Values:
  - 1 = None
  - 2 = One
  - 3 = Two
  - 4 = Three

- The Ramus Intermedius is a vessel that can function as part of the LAD system or as part of the Circumflex system depending on its course. If the Ramus is part of the LAD system and functions much like a diagonal, code 1 vessel disease. If the Ramus is part of the Circumflex system and functions much like an obtuse marginal AND the patient has LA disease, code 2 vessel disease. If there is ONLY ramus disease, the Ramus should count as a single vessel disease.

72. Number of Diseased Coronary Vessels

- STS Update April 2023 – If an IFR, FFR, or IVUS is performed and demonstrates a higher degree of stenosis than the diagnostic cath, code the highest stenosis. For example, Cardiac Cath states LAD with 60% stenosis in the mid segment. IFR performed showing "severe" stenosis in mid LAD, use the descriptive term "severe" and code as 90%.

Number of Diseased Coronary Vessels (cont.)



80. Incidence

- Indicate if this is the patient's:
  1 = First Cardiovascular surgery
  2 = First re-op cardiovascular surgery
  3 = Second re-op cardiovascular surgery
  4 = Third re-op cardiovascular surgery
  5 = Fourth or more re-op cardiovascular surgery

- NOTE: First operative means the patient has never had any procedure on the heart and/or great vessels.

Incidence (cont.)

- CV surgeries INCLUDE: CABG, valve replacement/repair, intracardiac repair (ASD, VSD), ventricular aneurysmectomy, or surgery on the aortic arch. Use of CPB not required.
- CV surgeries DO NOT INCLUDE: PCI's and non-cardiac vascular surgeries such as abdominal aortic aneurism repair or fem-pop bypass, percutaneous aortic stent graft, percutaneous valve or pacemaker/ICD implantation.
- The intent of this field is to capture the incidence of the procedure that the patient is about to go through during the current hospitalization, as compared to those procedures prior to this hospitalization.

Incidence (cont.)

- For the purposes of this field surgery is defined as cardiothoracic surgical procedures performed on the heart, great vessels or major pericardial procedures, with or without cardiopulmonary bypass (CPB). Ascending aortic and arch procedures also qualify. Similarly, catheter-based procedures such as TAVR, TEVAR, mitral-clip, are endovascular procedures and are not classified as prior surgery*

*In general, prior catheter-based procedures such as TAVR, TEVAR, mitral-clip, are endovascular procedures and are not classified as prior surgery and do not affect incidence. The only exceptions are when a prior transcatheter valve replacement is redone surgically. This is due to the tissue growth over a transcatheter valve frame that embeds itself into surrounding tissue

Incidence (cont.)

- STS Update May 2023 - Re-op in the same episode of care does not count towards incidence. For example, a patient had CABG in 2005 which was complicated by reoperation in the early postoperative period for bleeding. Patient is now having an AVR. Code AVR as first CV re-operation.

Incidence (cont.)

Examples

- Prior TAVR case that needs a redo-AVR should be coded as first reoperation.
- Prior TAVR case that needs another cardiac procedure such as a CAB or MVR should be code as incidence as first CV surgery.
- Prior Mitral Clip Procedure that needs an MVR should be coded as the first operation.
- Prior TMVR case that needs a redo-MVR should be coded as first reoperation.
- Prior TMVR case that needs another cardiac procedure such as a CAB or AVR should be code as incidence as first CV surgery.

**If patient is having a CABG (without a SAVR) but had a previous TAVR. Code Previous Valve = Yes and Incidence =1 (first cardiovascular surgery). Note: CORC will display a warn RW015, but this is okay)*

81. Status

- Indicate the clinical status of the patient prior to entering the operating room.

1 = Elective: The patient's cardiac function has been stable in the days or weeks prior to the operation. The procedure could be deferred without increased risk of compromised cardiac outcome.

2 = Urgent: Procedure required during same hospitalization in order to minimize chance of further clinical deterioration. Examples include but are not limited to: Worsening, sudden chest pain, CHF, acute myocardial infarction (AMI), anatomy, IABP, unstable angina (USA) with intravenous (IV) nitroglycerin (NTG) or rest angina.

Status (cont.)

3 = Emergent: Patients requiring emergency operations will have ongoing, refractory (difficult, complicated, and/or unmanageable) unrelenting cardiac compromise, with or without hemodynamic instability, and not responsive to any form of therapy except cardiac surgery. An emergency operation is one in which there should be no delay in providing operative intervention.

4 = Emergent Salvage: The patient is undergoing CPR en route to the O.R. or prior to anesthesia induction or has ongoing ECMO to maintain life. **CCORP requires documentation of all cases coded as Yes**

Status (cont.)

- Status refers to the patient's condition immediately before surgery; it should not reflect instability which occurs after the induction of anesthesia or the operative risk but rather how expediently surgery must be performed. Thus some elective patients may be at higher risk than urgent patients; for example, an elderly patient with an ejection fraction of 20% and COPD operated on electively compared to a young patient with a normal ejection fraction that has ongoing unstable angina.

- **RULE OF THUMB: Elective – waits at home. Urgent – waits in hospital. Emergent – cannot wait or is not safe to wait. Emergent Salvage – no pulse.**

98. Neuro – Stroke Permanent

- Indicate whether the patient has a postoperative stroke (i.e., any confirmed neurological deficit of abrupt onset caused by a disturbance in blood supply to the brain) that was confirmed on imaging or did not resolve within 24 hours.

- Intent/Clarification: The intent is to capture whether the patient has a postoperative stroke (i.e. any confirmed neurological deficit of abrupt onset caused by a disturbance in blood supply to the brain) that was confirmed on imaging or did not resolve within 24 hours.

- Valid Values:
  - 1 = Yes
  - 2 = No

98. Neuro – Stroke Permanent (cont.)

- Central events are caused by embolic or hemorrhagic events. Neurological deficits such as confusion, delirium and/or encephalopathic (anoxic or metabolic) events are not to be coded in this field.