

Section M. OTHER CARDIAC PROCEDURES

Section Intent: The intent of this section is to list other cardiac procedures that may be done in conjunction with or as the primary surgical procedure.

Sequence #	Data Field	Data Field Intent	Field Name Clarification	Source Document
2360	Other Card-LVA	Indicate if the patient had a Left Ventricular Aneurysm (LVA) repair either in conjunction with or as the primary surgical procedure.	<p>(LVA) Aneurysm in the left ventricle is opened, any thrombus removed and the ventriculotomy is closed with/without patch.</p> <p><i>Example #1: The patient underwent a CAB X 3, Aortic Valve Replacement with annular enlargement and repair of left ventricular apical rupture. During the procedure it was noted that the patient had an apical infarct with a generous subendocardial hematoma at the apex of the heart which was hemorrhaging. This required a left ventricular repair with felt pledgeted suture. Code this procedure as "Yes" to Seq # 1280 CAB, Seq # 1630 AVR, Seq # 1670 Annular enlargement and Seq # 2360 LVA.</i></p> <p><i>Example #2: A procedure labeled aneurysmorrhaphy performed in conjunction with a CAB where the anterior wall was severely scarred, retracted and reduced and supported by multiple Teflon pledgets should be coded as "Yes" for LVA.</i></p>	Discharge summary Operative notes Operative report Physician progress notes
2370	Other Card-VSD	Indicate whether the patient had a Ventricular Septal Defect (VSD) Repair, either in conjunction with, or as the primary surgical procedure.	(VSD) Defect of the ventricular septum is closed with/without patch.	Discharge summary Operative notes Operative report Physician progress notes
2380	Other Card-ASD	Indicate whether the patient had an Atrial Septal Defect (ASD) Repair either in conjunction with or as the primary surgical procedure including but not limited to ASD, Secundum, ASD, Sinus venosus, and Patent Foramen Ovale (PFO).	(ASD) Defect of the atrial septum is closed with/without patch.	Discharge summary Operative notes Operative report Physician progress notes

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2390	Other Card-Batista	Indicate whether the patient had a Left Ventricular Reduction Myoplasty either in conjunction with or as the primary surgical procedure.	<p>Left Ventricular Reduction Myoplasty is a procedure whereby the left ventricular myocardium is excised to reduce left ventricular volume in patients with a dilated cardiomyopathy; with or without mitral valve replacement or repair.</p> <p>If a concomitant valve procedure is performed, please check that category also.</p> <p>End stage heart failure results in an enlarged poorly contractile left ventricle. This concept of reducing left ventricular mass and volume would improve ability of heart to eject.</p>	<p>Discharge summary</p> <p>Operative notes</p> <p>Operative report</p> <p>Physician progress notes</p>
2400	Other Card-Surgical Ventricular Restoration	Indicate whether the patient had a Surgical Ventricular Restoration, either in conjunction with, or as the primary surgical procedure.	<p>Surgical Ventricular Restorations (SVR) are procedures that restore the geometry (remodeling of the ventricle) of the heart after an anterior MI. They include the Dor procedure (named for a physician who authored many articles on the procedure) or the Surgical Anterior Ventricular Endocardial Restoration (SAVER) procedure. The SVR procedure is distinct from an anterior left ventricular aneurysmectomy (LVA) and from a Batista procedure (left ventricular volume reduction procedure).</p>	<p>Discharge summary</p> <p>Operative notes</p> <p>Operative report</p> <p>Physician progress notes</p>
2410	Other Card-Congenital	Indicate whether the patient had a congenital defect repair either in conjunction with or as the primary surgical procedure.	<p>Repair of cardiac defect or anomaly of a congenital nature present since birth. Common procedures include Ligation of Patent Ductus Arteriosus. Code as "Yes" if a Coarctation of the Aorta. is performed on a adult patient.</p> <p>NOTE: Code Closure or repair of Patent Foramen Ovale as Seq # 2380 "Other Card-ASD".</p>	<p>Discharge summary</p> <p>Operative notes</p> <p>Operative report</p> <p>Physician progress notes</p>

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2420	Other Card-Transmyocardial Laser Revascularization	Indicate whether the patient underwent the creation of multiple channels in the left ventricular myocardium with a laser fiber, either in conjunction with, or as the primary surgical procedure.	A laser is used to make small transmural perforations in the heart. These channels allow for blood to enter the myocardium directly from the ventricle chamber or through communications with the native coronary circulations. Used primarily in areas of the heart where bypass grafting is not feasible, to improve collateralization of circulation.	Discharge summary Laser record Operative notes Operative report Physician progress notes
2430	Other Card-Cardiac Trauma	Indicate whether the patient had a surgical procedure for an injury due to a Cardiac Trauma, either in conjunction with, or as the primary surgical procedure.	Injury to the heart such as a gun shot wound, stab wound, car accident or other trauma induced injury. Example: If the transaction was due to a pathological reason, code according to that condition. For example, an aortic aneurysm that ruptured, would be coded to Seq # 2510 "Other Card Ao Aneur".	Discharge summary Operative notes Operative report Physician progress notes
2440	Other Card-Cardiac Tx	Indicate whether the patient had a Heterotopic or Orthotopic heart transplantation, either in conjunction with, or as the primary surgical procedure.	Heterotopic Transplant – The transplant recipient's heart is not explanted. A donor's heart is implanted as a "piggy back" to the patient's native heart. The donor heart acts as an assist pump for the diseased heart. The patient now has two hearts. Orthotopic – The patient's diseased native heart is excised and replaced with a donor heart. The recipient heart is removed completely except for small cuff of right and left atrium.	Discharge summary Operative notes Operative report Physician progress notes

Sequence #	Data Field	Data Field Intent	Field Name Clarification	Source Document
2450	Other Card-Arrhythmia Correction Surgery	<p>Indicate if one of the following arrhythmia correction devices was surgically placed, either in conjunction with or as the primary surgical procedure:</p> <ul style="list-style-type: none"> -None -Permanent Pacemaker -Permanent Pacemaker with Cardiac Resynchronization Therapy (CRT) -Automatic Implanted Cardioverter Defibrillator (AICD) 	<p>An internal electronic generator that controls heart rate. Pacemakers can be univentricular or biventricular. Univentricular means only the right ventricle is paced. Right atria only paced = single chamber pacing Right ventricle only paced = single chamber pacing Right ventricle and right atria paced = dual chamber pacing</p> <p>Internal permanent pacemaker that uses biventricular electrical stimulation to synchronize ventricular contraction. Biventricular: Both the right and left ventricles are paced.</p> <p>Internal device that defibrillates the heart.</p>	<p>Discharge summary Operative notes Operative report Physician progress notes</p>

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2450 (continued)	Other Card-Arrhythmia Correction Surgery	-AICD with CRT	<p>An internal AICD that uses biventricular electrical stimulation to synchronize ventricular contraction = Cardiac Resynchronization Therapy (CRT)</p> <p>NOTE: Confusion exists when data managers try to code AICD with pacing capability. They should code AICD only and not Permanent pacemaker.</p> <p><i>Example: A surgeon places only epicardial leads for an ICD or CRT, but does not place the device during surgery. The device is implanted later in the cath lab. Code this data field as "None", But for Seq # 2560, "Other Cardiac Other", this scenario would be coded as "Yes".</i></p>	
2460	Other Card-Arrhythmia Correction Surgery- Lead Placement	Indicate which lead placement was used for the permanent pacemaker with CRT or AICD with CRT.	<p>Epicardial: the outer most layer of the heart.</p> <p>Endocardial: the inner most layer of the heart.</p> <p>Endocardial leads can be implanted during primary cardiac procedures.</p> <p>Most CRT BiV devices are implanted endocardially, with one lead in the endocardial RV and the second lead endocardially in the coronary sinus ("LV lead"). Some patients receive an epicardial LV lead via a thoracoscope or mini-thoracotomy approach.</p> <p>If the LV lead is placed in the coronary sinus, then both leads are endocardial. If the LV lead is placed on the epicardium via this thoracoscopic/thoracotomy approach, then it should be coded as an epicardial lead. In both cases, the RV lead is endocardial.</p> <p>If in a particular case, both epicardial and endocardial leads are placed, code Seq # 2460 as "Epicardial".</p>	<p>Discharge summary</p> <p>Operative notes</p> <p>Operative report</p> <p>Physician progress notes</p>

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2470	Other Card-Atrial Fibrillation Correction Surgery	<p>Indicate if one of the following atrial fibrillation correction surgeries was performed either in conjunction with or as the primary surgical procedure.</p> <p>None</p> <p>Standard Surgical Maze Procedure: Surgical procedure in which full thickness incisions are made in the atria of the heart. Sutures are then used to reapproximate the incised tissue. The resulting lesion disrupts the abnormal reentry pathways of electronic signals that lead to atrial fibrillation.</p> <p>Other Surgical Ablative Procedure (Modified Maze Procedure): Surgical procedure in which lesions are created in the atria of the heart by an energy source. The lesion disrupts the abnormal reentry pathways of electronic signals that lead to atrial fibrillation.</p>	<p>The intent of both surgeries is to preclude the atria from fibrillating by disrupting the abnormal reentry pathways of electronic signals that lead to atrial fibrillation.</p> <p><i>Example #1: A patient has a CAB procedure along with a MAZE procedure. A CAB + other. A CAB+MAZE would be coded as: Seq # 1280 OpCAB = Yes; and Seq # 1310 OpOCard = Yes; and Seq # 2470 OcarAFib = Appropriate Choice.</i></p> <p><i>Example #2: If there is stapling of the left atrial appendage but the patient only has a CAB and there is no MAZE procedure performed then this is an isolated CAB. The stapling of the left atrial appendage did not add to the procedure, so this should be coded "Yes" for Seq # 1280 OpCAB.</i></p> <p><i>Example #3: The surgeon writes in his operative note pulmonary vein isolation using ATRICURE and ligation of the left atrial appendage but does not call it a MAZE. This is an arrhythmia correction surgery. Code option Other Surgical Ablative Procedure.</i></p>	<p>Discharge Summary Operative notes Operative report Physician progress notes</p>

Sequence #	Data Field	Data Field Intent	Field Name Clarification	Source Document
2470 (continued)	Other Card-Atrial Fibrillation Correction Surgery	Combination of Standard Surgical Maze Procedure and Other Surgical Ablative Procedure.	<i>Example #4: The patient had a CABG and a Maze procedure; in addition the pt had an amputation of the the left atrial appendage. Amputation of the left atrial appendage is not an additional procedure. These should be coded as: Seq # 1280 OpCAB = Yes; Seq # 1310 OpOCard = Yes; Seq # 2470 OcarAFib = Appropriate Choice.</i>	Discharge summary Operative notes Operative report Physician progress notes
2510	Other Card-Ao Aneur	Indicate whether the patient underwent an Aortic Aneurysm repair either in conjunction with or as the primary surgical procedure. This includes dissections, non-dissections and ruptures of the aorta. Ascending Aorta Aortic Arch Descending Aorta Thoracoabdominal Aorta	Aneurysm may refer to the “ <i>pathologic or traumatic</i> dissection, non-dissection and ruptures of the aorta”.	Discharge summary Operative notes Operative report Physician progress notes

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2520	Other Card-Asc	Indicate if the patient underwent repair of ascending aortic aneurysm either in conjunction with or as the primary surgical procedure.	Aneurysm refers to the pathologic dilatation of the aorta. The ascending aorta begins at the aortic annulus and ends at the origin of the innominate artery where the aorta continues as the transverse arch.	Discharge summary Operative notes Operative report Physician progress notes
2530	Other Card-Arch	Indicate if the patient underwent repair of aneurysm in the arch of the aorta either in conjunction with or as the primary surgical procedure.	The arch begins at the origin of the innominate artery and ends beneath the left subclavian artery. It is the portion of the aorta at the top of the heart that gives off three important blood vessels; the innominate artery, the left carotid artery and the left subclavian artery.	Discharge summary Operative notes Operative report Physician progress notes
2540	Other Card-Desc	Indicate if the patient underwent repair of a descending aortic aneurysm either in conjunction with or as the primary surgical procedure.	The descending aorta is the portion of the aorta between the arch and the abdomen.	Discharge summary Operative notes Operative report Physician progress notes

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2550	Other Card-Thoracoabdominal Aneurysm	Indicate if the patient underwent repair of a thoracoabdominal aneurysm, either in conjunction with, or as the primary surgical procedure.	Thoracoabdominal aneurysms can involve the entire thoracoabdominal aorta from the origin of the left subclavian artery to the aortic bifurcation or can involve one or more segments of the abdominal aorta.	Discharge summary Operative notes Operative report Physician progress notes
2560	Other Cardiac-Other	Indicate whether the patient had another cardiac procedure performed either in conjunction with, or as the primary surgical procedure that is not included within this section.	<p>The following is a guideline for assessing which procedures to capture for Other Card - Other:</p> <p>Those procedures that have a high likelihood of negatively impacting a patient's outcome (survival, quality of life, ability to recover) and/or prolong the patient's length of stay.</p> <p>Due to the impossibility of publishing a complete list of procedures to include and not to include in this field, the STS continues to encourage sites to submit the procedure in question as a clinical question. Whether to include or not to include a procedure will be dealt with on a procedure by procedure basis.</p> <p>May include a Total Artificial Heart (TAH) implant.</p> <p>If the surgeon places only epicardial leads for an ICD or CRT, but no device is implanted, code this as "Yes".</p> <p><i>Example #1: If the operative procedure is Off pump CABG X 3, exclusion of the left atrial appendage, and cardioversion then this would be coded as an isolated CABG.</i></p> <p><i>Example #2: If a patient had in addition to a CABG a "ligation of fistula between the LAD and PA", this should this be coded as an isolated CAB.</i></p>	Discharge summary Operative notes Operative report Physician progress notes

Sequence #	Data Field	Data Field Intent	Field Name Clarification	Source Document
2560 (continued)	Other Cardiac- Other		<p><i>Example #3: A surgeon had to do a local dissected aneurysm repair to the aorta, which was due to operative manipulations during an isolated CAB that didn't involve a full aortic graft, (just suture repair and reattachment of proximal graft) It happened at a vein hood attachment that kept getting worse with attempted repair at the site. This would be coded "No" for "Other Cardiac Other". Code this as an isolated CAB.</i></p> <p><i>Example #4: A CAB with a vein patch angioplasty of the LAD would be coded as an isolated CAB.</i></p> <p><i>Example #5: A retrosternal lymph node biopsy performed at the same time as a CAB would be coded as an isolated CAB.</i></p> <p><i>Example #6: An endarterectomy of a RCA exclusion of a LAD aneurysm patch plasty and bypass would not change the operative category from isolated CAB, nor does a patch angioplasty.</i></p> <p><i>Example #7: In addition to CABG, the patient had "ligation of fistula between LAD and PA". This should be coded as an isolated CAB.</i></p>	Discharge summary Operative notes Operative report Physician progress notes

Sequence #	Data Field	Data Field Intent	Data Field Clarification	Source Document
2560 (continued)	Other Cardiac- Other		<p><i>Example #8: The cardiothoracic surgeon performed a median sternotomy with establishment of venovenous bypass from the inferior vena cava to the right atrium. This was required in order to resect the tumor from the inferior vena cava. The patient was on pump for 60 minutes and cross clamped for 28 minutes. The mass was removed from the inferior vena cava as well as a Radical Nephrectomy. Include this patient in the Adult Cardiac Database and code as "Other Cardiac Other".</i></p> <p><i>Example #9: A pulmonary valvectomy should be coded as "Other Cardiac Other".</i></p> <p><i>Example #10: A pulmonary embolectomy should be coded as "Other Cardiac Other".</i></p>	Discharge summary Operative notes Operative report Physician progress notes