



The Society of Thoracic Surgeons

Adult Cardiac Surgery Database

Data Collection Form Version 2.9

February 13, 2017

A. Administrative		
Participant ID: ParticID (25)	Record ID: (software generated) RecordID (30)	STS Cost Link: CostLink (35)
Patient ID: (software generated) PatID (40)		
Patient participating in STS-related clinical trial: ClinTrial (45)		
<input type="checkbox"/> None <input type="checkbox"/> Trial 1 <input type="checkbox"/> Trial 2 <input type="checkbox"/> Trial 3 <input type="checkbox"/> Trial 4 <input type="checkbox"/> Trial 5 <input type="checkbox"/> Trial 6 (If not "None" →)		Clinical trial patient ID: _____ ClinTrialPatID (46)

B. Demographics		
Patient Last Name: PatLName (50)	Patient First Name: PatFName (55)	Patient Middle Name: PatMName (60)
Date of Birth: ____/____/____ (mm/dd/yyyy) DOB (65)	Patient Age: _____ Age (70)	Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female Gender (75)
National Identification (Social Security) Number Known: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused (If Yes →) SSNKnown (76)		National ID Number: _____ SSN (80)
Medical Record Number: MedRecN (85)		
Street Address: PatAddr (90)	City: PatCity (95)	
Region: PatRegion (100)	ZIP Code: PatZIP (105)	Country: PatientCountry (115)
Is This Patient's Permanent Address: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown PermAddr (120)		
Is the Patient's Race Documented? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Pt. Declined to Disclose RaceDocumented (150)		
(If Yes →) Race : (Select all that apply→)		
White: RaceCaucasian (155)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Am Indian/Alaskan: RaceNativeAm (170)
Black/African American: RaceBlack (160)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Hawaiian/Pacific Islander: RacNativePacific (175)
Asian: RaceAsian (165)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other: RaceOther (180)
Hispanic, Latino or Spanish Ethnicity: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Documented Ethnicity (185)		

C. Hospitalization	
Hospital Name: _____ (If Not Missing →) HospName (205)	Hospital ZIP Code: _____ HospZIP (210)
Hospital National Provider Identifier: _____ HospNPI (220)	Hospital CMS Certification Number: _____ HospCMSCert (221)
Primary Payor: (Choose one) PayorPrim (291)	(If Primary Payor <>None/Self ↓) Secondary Payor: (Choose one) PayorSecond (293)
<input type="checkbox"/> None/Self	<input type="checkbox"/> None
<input type="checkbox"/> Medicare (includes commercially managed options)	<input type="checkbox"/> Medicare
<input type="checkbox"/> Medicaid (includes commercially managed options)	<input type="checkbox"/> Medicaid
<input type="checkbox"/> Military Health	<input type="checkbox"/> Military Health
<input type="checkbox"/> Indian Health Service	<input type="checkbox"/> Indian Health Service
<input type="checkbox"/> Correctional Facility	<input type="checkbox"/> Correctional Facility
<input type="checkbox"/> State Specific Plan	<input type="checkbox"/> State Specific Plan
<input type="checkbox"/> Other Government Insurance	<input type="checkbox"/> Other Government Insurance
<input type="checkbox"/> Commercial Health Insurance	<input type="checkbox"/> Commercial Health Insurance
<input type="checkbox"/> Health Maintenance Organization	<input type="checkbox"/> Health Maintenance Organization
<input type="checkbox"/> Non -U.S. Plan	<input type="checkbox"/> Non -U.S. Plan
<input type="checkbox"/> Charitable care/ Foundation Funding	<input type="checkbox"/> Charitable care/ Foundation Funding
(if Medicare →) Primary Payor Medicare Fee for Service: <input type="checkbox"/> Yes <input type="checkbox"/> No PrimMCareFFS (292)	(if Medicare →) Secondary Payor Medicare Fee for Service: <input type="checkbox"/> Yes <input type="checkbox"/> No SecondMCareFFS (294)

Admit Date: ___/___/___ (mm/dd/yyyy)	Date of Surgery: ___/___/___ (mm/dd/yyyy)
AdmitDt (305)	SurgDt (310)
Admit Source: <input type="checkbox"/> Elective Admission <input type="checkbox"/> Emergency Department <input type="checkbox"/> Transfer in from another hospital/acute care facility <input type="checkbox"/> Other	
AdmitSrc (320)	(If Transfer →) Other Hospital Performs Cardiac Surgery <input type="checkbox"/> Yes <input type="checkbox"/> No OthHosCS (325)

D. Risk Factors	
"Unknown" should only be selected if Patient / Family unable to provide history	
Height (cm): _____ HeightCm (330)	Weight (kg): _____ WeightKg (335)
Family History of Premature Coronary Artery Disease: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown FHCAD (355)	
Diabetes: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →) Diabetes-Control: <input type="checkbox"/> None <input type="checkbox"/> Diet only <input type="checkbox"/> Oral <input type="checkbox"/> Insulin <input type="checkbox"/> Other SubQ <input type="checkbox"/> Other <input type="checkbox"/> Unknown Diabetes (360) DiabCtrl (365)	
Dyslipidemia: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Dyslip (370)	Dialysis: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Dialysis (375)
Hypertension: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Hypertn (380)	
Endocarditis: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Endocarditis Type: <input type="checkbox"/> Treated <input type="checkbox"/> Active InfEndo (385) InfEndTy (390)	
(If Endocarditis Yes →) Endocarditis Culture: <input type="checkbox"/> Culture negative <input type="checkbox"/> Strep species <input type="checkbox"/> MRSA <input type="checkbox"/> MSSA <input type="checkbox"/> Coagulase negative staph InfEndCult (395) <input type="checkbox"/> Enterococcus species <input type="checkbox"/> Gram negative species <input type="checkbox"/> Polymicrobial <input type="checkbox"/> Mycobacterium (chimera) <input type="checkbox"/> Fungal <input type="checkbox"/> Other <input type="checkbox"/> Unknown	
Tobacco use: <input type="checkbox"/> Never smoker <input type="checkbox"/> Current every day smoker <input type="checkbox"/> Current some day smoker TobaccoUse (400)	<input type="checkbox"/> Smoker, current status (frequency) unknown <input type="checkbox"/> Former smoker <input type="checkbox"/> Smoking status unknown
Lung Disease: <input type="checkbox"/> No <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Lung disease documented, severity unknown <input type="checkbox"/> Unknown ChrLungD (405)	
(If Mild, Moderate or Severe →) Type: <input type="checkbox"/> Obstructive <input type="checkbox"/> Reactive <input type="checkbox"/> Interstitial Fibrosis <input type="checkbox"/> Restrictive <input type="checkbox"/> Other <input type="checkbox"/> Multiple <input type="checkbox"/> Not Documented ChrLungDType (410)	
Pulmonary Function Test Done: <input type="checkbox"/> Yes <input type="checkbox"/> No PFT (415)	
(If Yes →) FEV1 % Predicted: _____ FEV1 (420)	DLCO Test Performed: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) DLCO % Predicted: _____ DLCO (425) DLCPred (430)
Room Air ABG Performed: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) ABG (435)	Carbon Dioxide Level: _____ PO2 (445) PCO2 (440)
Home Oxygen: <input type="checkbox"/> Yes, PRN <input type="checkbox"/> Yes, oxygen dependent <input type="checkbox"/> No <input type="checkbox"/> Unknown HmO2 (450)	Inhaled Medication or Oral Bronchodilator Therapy: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown BDTx (455)
Sleep Apnea: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown SlpApn (460)	Pneumonia: <input type="checkbox"/> Recent <input type="checkbox"/> Remote <input type="checkbox"/> No <input type="checkbox"/> Unknown Pneumonia (465)
Illicit Drug Use: <input type="checkbox"/> Recent <input type="checkbox"/> Remote <input type="checkbox"/> No <input type="checkbox"/> Unknown IVDrugAb (470)	Depression <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Depression (475)
Alcohol Use: <input type="checkbox"/> <=1 drink/week <input type="checkbox"/> 2- 7 drinks/week <input type="checkbox"/> >=8 drinks/week <input type="checkbox"/> None <input type="checkbox"/> Unknown Alcohol (480)	
Liver Disease: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →) LiverDis (485)	Child -Pugh Class <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Unknown LiverChildPugh (486) Listed for liver transplant: <input type="checkbox"/> Yes <input type="checkbox"/> No LiverTransList (487) Status post liver transplant: <input type="checkbox"/> Yes <input type="checkbox"/> No LiverStatusPost (488)
Immunocompromise Present: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown ImmSupp (490)	Mediastinal Radiation: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown MediastRad (495)
Cancer Within 5 Years: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Cancer (500)	Peripheral Artery Disease: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown PVD (505)
Thoracic Aorta Disease: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown ThAoDisease (510)	Syncope: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Syncope (515)
Unresponsive State: <input type="checkbox"/> Yes <input type="checkbox"/> No UnrespStat (520)	Chest wall Deformity: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown ChestWallDef (521)

Cerebrovascular Disease: Yes No Unknown
CVD (525)
 (If Yes →) Prior CVA: Yes No Unknown (If Yes →) Prior CVA-When: ≤ 30 days > 30 days
CVA (530) CVAWhen (535)

CVD TIA: Yes No Unknown
CVDTIA (540)
 CVD Carotid stenosis: Right Left Both None Not Documented
CVDCarSten (545)
 (If “Right” or “Both” →) Severity of stenosis on the right carotid artery: 50-79% 80 – 99% 100% Not documented
CVDStenRt (550)

(If “Left” or “Both” →) Severity of stenosis on the left carotid artery: 50-79% 80 – 99% 100% Not documented
CVDStenLft (555)

History of previous carotid artery surgery and/or stenting: Yes No
CVDPCarSurg (560)

Enter available lab results below. Not all tests are expected or appropriate for all patients. Data Quality Report will flag missing Creatinine or if both Hemoglobin & Hematocrit are missing. if Liver disease is present, Creatinine, Bilirubin and INR are expected

WBC Count: WBC (565) _____	Hemoglobin: _____ RFHemoglobin (570)	Hematocrit: _____ Hct (575)	Platelet Count: _____ Platelets (580)
Last Creatinine Level: _____ CreatLst (585)	Total Albumin: _____ TotAlbumin (590)	Total Bilirubin: _____ TotBlrbn (595)	A1c Level: _____ A1cLvl (600)
HIT Antibodies <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable HITAnti (605)	INR: _____ INR (610)	MELD Score: _____ (System Calculation) MELDScr (615)	BNP _____ BNP (620)
Five Meter Walk Test Done: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Non-ambulatory patient FiveMWalkTest (645)			
(If Yes →)	Time 1: _____ (seconds) FiveMWalk1 (650)	Time 2: _____ (seconds) FiveMWalk2 (655)	Time 3 : _____ (seconds) FiveMWalk3 (660)
Six Minute Walk test done: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) SixMWalkDone (661)	Total Distance : _____ feet SixMWalkDist (662)		

E. Previous Cardiac Interventions

Previous Cardiac Interventions: Yes No Unknown
PrCVInt (665)
 (If Yes →) Previous coronary artery bypass (CAB): Yes No
PrCAB (670)

Previous valve procedure: Yes No If PrValve Yes, Enter at least one previous valve procedure and up to 5 ↓
PrValve (675)

	#1 PrValveProc1 (695)	#2 PrValveProc2 (700)	#3 PrValveProc3 (705)	#4 PrValveProc4 (710)	#5 PrValveProc5 (715)
No additional valve procedure(s)					
Aortic valve balloon valvotomy/valvuloplasty					
Aortic valve repair, surgical					
Aortic valve replacement, surgical					
Aortic valve replacement, transcatheter					
Mitral valve balloon valvotomy/valvuloplasty					
Mitral valve commissurotomy, surgical					
Mitral valve repair, percutaneous					
Mitral valve repair, surgical					
Mitral valve replacement, surgical					
Mitral valve replacement, transcatheter					
Tricuspid valve balloon valvotomy/valvuloplasty					
Tricuspid valve repair, percutaneous					
Tricuspid valve repair, surgical					
Tricuspid valve replacement, surgical					
Tricuspid valve replacement, transcatheter					
Tricuspid valvectomy					
Pulmonary valve balloon valvotomy/valvuloplasty					
Pulmonary valve repair, surgical					
Pulmonary valve replacement, surgical					

Pulmonary valve replacement, transcatheter							
Pulmonary valvectomy							
Other valve procedure							
Previous PCI: <input type="checkbox"/> Yes <input type="checkbox"/> No POCPCI (775)							
(If Yes →) PCI Performed Within This Episode Of Care: <input type="checkbox"/> Yes, at this facility <input type="checkbox"/> Yes, at some other acute care facility <input type="checkbox"/> No POCPCIWhen (780)							
(If “Yes, at this facility” or “Yes, at some other acute care facility” ↓)							
Indication for Surgery:		<input type="checkbox"/> PCI Complication	<input type="checkbox"/> PCI Failure without Clinical Deterioration				
POCPCIIndSurg (785)		<input type="checkbox"/> PCI Failure with Clinical Deterioration	<input type="checkbox"/> PCI/Surgery Staged (not STEMI)				
		<input type="checkbox"/> PCI for STEMI, multivessel disease	<input type="checkbox"/> Other				
PCI Stent: <input type="checkbox"/> Yes <input type="checkbox"/> No		(If Yes →) Stent Type: <input type="checkbox"/> Bare metal <input type="checkbox"/> Drug-eluting <input type="checkbox"/> Bioresorbable <input type="checkbox"/> Multiple					
POCPCISt (790)		<input type="checkbox"/> Unknown		POCPCISTy (795)			
PCI Interval: <input type="checkbox"/> ≤ 6 Hours <input type="checkbox"/> > 6 Hours POCPCIIn (800)							
Other Previous Cardiac Interventions: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, Enter at least one previous other cardiac procedure and up to 7 ↓) POC (805)							
	#1 POCInt1 (810)	#2 POCInt2 (815)	#3 POCInt3 (820)	#4 POCInt4 (825)	#5 POCInt5 (830)	#6 POCInt6 (835)	#7 POCInt7 (840)
No additional interventions							
Ablation, catheter, atrial fibrillation							
Ablation, catheter, other or unknown							
Ablation, catheter, ventricular							
Ablation, surgical, atrial fibrillation							
Ablation, surgical, other or unknown							
Aneurysmectomy, LV							
Aortic procedure, arch							
Aortic procedure, ascending							
Aortic procedure, descending							
Aortic procedure, root							
Aortic procedure, thoracoabdominal							
Aortic Procedure, TEVAR							
Aortic root procedure, valve sparing							
Atrial appendage obliteration, Left, surgical							
Atrial appendage obliteration, Left, transcatheter							
Cardiac Tumor							
Cardioversion(s)							
Closure device, atrial septal defect							
Closure device, ventricular septal defect							
Congenital cardiac repair, surgical							
ECMO							
Implantable Cardioverter Defibrillator (ICD) with or without pacemaker							
Pacemaker							
Pericardial window/Pericardiocentesis							
Pericardiectomy							
Pulmonary Thromboembolectomy							
Total Artificial Heart (TAH)							
Transmyocardial Laser Revascularization (TMR)							
Transplant heart & lung							
Transplant, heart							
Transplant, lung(s)							
Ventricular Assist Device (VAD), BiVAD							
Ventricular Assist Device (VAD), left							
Ventricular Assist Device (VAD), right							
Other Cardiac Intervention (not listed)							

F. Preoperative Cardiac Status						
Prior Myocardial Infarction: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes ↓) PrevMI (885)						
MI When: <input type="checkbox"/> ≤6 Hrs. <input type="checkbox"/> >6 Hrs. but <24 Hrs. <input type="checkbox"/> 1 to 7 Days <input type="checkbox"/> 8 to 21 Days <input type="checkbox"/> >21 Days MIWhen (890)						
Cardiac Presentation/Symptoms: (Choose one from the list below for each column ↓)						
	At time of this admission: CardSympTimeOfAdm (895)			At time of surgery: CardSympTimeOfSurg (900)		
No Symptoms						
Stable Angina						
Unstable Angina						
Non-ST Elevation MI (Non-STEMI)						
ST Elevation MI (STEMI)						
Angina Equivalent						
Other						
Heart Failure: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →) Timing: <input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Both Type: <input type="checkbox"/> Systolic <input type="checkbox"/> Diastolic <input type="checkbox"/> Both <input type="checkbox"/> Unavailable HeartFail (911) HeartFailTmg (912) HeartFailType (913)						
Classification-NYHA: <input type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Class IV <input type="checkbox"/> Not Documented ClassNYH (915)						
Cardiogenic Shock : <input type="checkbox"/> Yes, at the time of the procedure <input type="checkbox"/> Yes, not at the time of the procedure but within prior 24 hours <input type="checkbox"/> No CarShock (930)						
Resuscitation: <input type="checkbox"/> Yes - Within 1 hour of the start of the procedure <input type="checkbox"/> Yes - More than 1 hour but less than 24 hours of the start of the procedure <input type="checkbox"/> No Resusc (935)						
Arrhythmia: <input type="checkbox"/> Yes <input type="checkbox"/> No Arrhythmia (945)						
Permanently Paced Rhythm: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Arrhythmia = Yes →) ArrhythPPaced (947)						
(If Yes, choose one response below for each rhythm →)	VTach/VFib ArrhythVV (950)	Sick Sinus Syndrome ArrhythSSS (955)	AFlutter ArrhythAFlutter (960)	AFibrillation ArrhythAtrFib (961)	Second Degree Heart Block ArrhythSecond (965)	Third Degree Heart Block ArrhythThird (970)
None						
Remote (> 30 days preop)						
Recent (≤ 30 days preop)						
(If AFibrillation not 'None' →)	Atrial Fibrillation Type: <input type="checkbox"/> Paroxysmal <input type="checkbox"/> Persistent <input type="checkbox"/> Longstanding Persistent <input type="checkbox"/> Permanent ArrhythAFib (962)					

G. Preoperative Medications			
Medication		Timeframe	Administration
ACE or ARB MedACEI48 (1020)		Within 48 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown
Amiodarone MedAmiodarone (1025)		Prior to surgery	<input type="checkbox"/> Yes, on home therapy <input type="checkbox"/> Yes, therapy started this admission <input type="checkbox"/> No <input type="checkbox"/> Unknown
Antianginal	Beta Blocker MedBeta (1030)	Within 24 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
	Beta Blocker MedBetaTher (1035)	On therapy for ≥ 2 weeks prior to surgery	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown
	Calcium Channel Blocker MedCChanTher (1040)	On therapy for ≥ 2 weeks prior to surgery	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown
	Long-acting Nitrate MedLongActNit (1045)	On therapy for ≥ 2 weeks prior to surgery	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown
	Nitrates, intravenous MedNitIV (1050)	Within 24 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Other Antianginal MedOthAntiang (1055)	On therapy for ≥ 2 weeks prior to surgery	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown
Antiplatelet	ADP Inhibitor (includes P2Y12) MedADP5Days (1060)	Within 5 days	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown (If Yes →) ADP Inhibitors Discontinuation: _____ (# days prior to surgery) MedADPIDis (1065)
	Aspirin MedASA (1070)	Within 5 days	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown
			(If Yes →) Aspirin Discontinuation: _____ (# days prior to surgery) MedASADis (1071) Aspirin one time dose: <input type="checkbox"/> Yes <input type="checkbox"/> No MedASAOnce (1072)
	Glycoprotein IIb/IIIa MedGP (1073)	Within 24 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No

Anticoagulant	Anticoagulants (Intravenous/ SubQ) MedACoag (1075)	Within 48 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) Medication: <input type="checkbox"/> Heparin (Unfractionated) MedACMN (1080) <input type="checkbox"/> Heparin (Low Molecular) <input type="checkbox"/> Both <input type="checkbox"/> Other
	Warfarin (Coumadin) MedCoum5Days (1091)	Within 5 days	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes→) Coumadin Discontinuation: _____ (# days prior to surgery) MedCoum5Dis (1092)
	Factor Xa inhibitors MedXa5Days (1101)	Within 5 days	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes→) Factor Xa Discontinuation: _____ (# days prior to surgery) MedXa5DDis (1102)
	Novel Oral Anticoagulant MedNOAC5Days (1111)	Within 5 days	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes→) NOAC Discontinuation: _____ (# days prior to surgery) MedNOACDisc (1112)
	Thrombin Inhibitors MedThromIn5Days (1121)	Within 5 days	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes→) Thrombin Inhibitor Discontinuation: _____ (# days prior to surgery) MedThromInDisc (1122)
	Thrombolytics MedThrom (1125)	Within 48 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Inotropic, intravenous MedInotr (1130)	Within 48 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Lipid lowering MedLipid (1135)	Within 24 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown (If Yes→) Medication Type : <input type="checkbox"/> Statin <input type="checkbox"/> Statin + Other <input type="checkbox"/> Non-statin/Other MedLipType (1141)
	Steroids MedSter (1143)	Within 24 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Unknown

H. Hemodynamics/Cath/Echo

Cardiac Catheterization Performed : Yes No (If Yes→) Cardiac Catheterization Date: ___/___/_____
CarCathPer (1145) CarCathDt (1150)

Coronary Anatomy/Disease known: Yes No (If Yes↓)
CorAnatDisKnown (1155)

Dominance: Left Right Co-dominant Not Documented
Dominance (1160)

Source(s) used to quantify stenosis : Angiogram CT IVUS Progress/OP Note Other Multiple
StenSource (1165)

Number Diseased Vessels : None One Two Three
NumDisV (1170)
(If one, two or three vessel disease ↓)

[Each Column with a "yes" response below must have documentation on at least one vessel](#)

Coronary	Native Artery % Stenosis Known: PctStenKnown (1175) <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes↓)	Graft(s) Graft(s) Present: GraftsPrsnt (1180) <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes↓)	Stent(s) Stent(s) Present: StentPrsnt (1185) <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes↓)	Fractional Flow Reserve (FFR) performed: FFRPerf (1190) <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes↓)	Instantaneous wave-free ratio (iFR) performed: IFRPerf (1191) <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes↓)
Left Main	_____% PctStenLMain (1195)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenLMain (1200)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenLMain (1205)	_____ FFRLMain (1210)	_____ IFRLMain (1212)
Proximal LAD	_____% PctStenProxLAD (1215)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenProxLAD (1220)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenProxLAD (1225)	_____ FFRProxLAD (1230)	_____ IFRProxLAD (1232)
Mid LAD	_____% PctStenMidLAD (1235)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenMidLAD (1240)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenMidLAD (1245)	_____ FFRMidLAD (1250)	_____ IFRMidLAD (1252)
Distal LAD	_____% PctStenDistLAD (1255)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenDistLAD (1260)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenDistLAD (1265)	_____ FFRDistLAD (1270)	_____ IFRDistLAD (1272)
Diagonal 1	_____% PctStenDiag1 (1275)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenDiag1 (1285)	_____ FFRDiag1 (1290)	_____ IFRDiag1 (1292)

		<input type="checkbox"/> Not Documented GrftStenDiag1 (1280)			
Diagonal 2	_____% PctStenDiag2 (1295)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenDiag2 (1300)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenDiag2 (1305)	_____ FFRDiag2 (1310)	_____ IFRDiag2 (1312)
Diagonal 3	_____% PctStenDiag3 (1315)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenDiag3 (1320)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenDiag3 (1325)	_____ FFRDiag3 (1330)	_____ IFRDiag3 (1332)
Circumflex	_____% PctStenCircflx (1335)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenCircflx (1340)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenCircflx (1345)	_____ FFRCircflx (1350)	_____ IFRCircflx (1352)
Obtuse Marginal 1	_____% PctStenOM1 (1355)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenOM1 (1360)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenOM1 (1365)	_____ FFROM1 (1370)	_____ IFROM1 (1372)
Obtuse Marginal 2	_____% PctStenOM2 (1375)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenOM2 (1380)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenOM2 (1385)	_____ FFROM2 (1390)	_____ IFROM2 (1392)
Obtuse Marginal 3	_____% PctStenOM3 (1395)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenOM3 (1400)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenOM3 (1405)	_____ FFROM3 (1410)	_____ IFROM3 (1412)
Ramus	_____% PctStenRamus (1415)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenRamus (1420)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenRamus (1425)	_____ FFRRamus (1430)	_____ IFRRamus (1432)
RCA	_____% PctStenRCA (1435)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenRCA (1440)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenRCA (1445)	_____ FFRRCA (1450)	_____ IFRRCA (1452)
Acute Marginal (AM)	_____% PctStenAM (1455)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenAM (1460)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenAM (1465)	_____ FFRAM (1470)	_____ IFRAM (1472)
Posterior Descending (PDA)	_____% PctStenPDA (1475)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenPDA (1480)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenPDA (1485)	_____ FFRPDA (1490)	_____ IFRPDA (1492)
Posterolateral (PLB)	_____% PctStenPLB (1495)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> 100% occlusion <input type="checkbox"/> Not Documented GrftStenPLB (1500)	<input type="checkbox"/> Patent <input type="checkbox"/> Stenosis >=50% <input type="checkbox"/> Not Documented StntStenPLB (1505)	_____ FFRPLB (1510)	_____ IFRPLB (1512)

Syntax Score Known: Yes No (If Yes→) Syntax Score: _____
 SyntaxScrKnown (1515) SyntaxScr (1520)

Stress Test: Yes No (If Yes →) Result: Negative (Normal) Positive (Abnormal) Not Documented
 StrsTstRes (1525) StrsTstRes (1531)

Ejection Fraction Done: Yes No (If Yes→) Ejection Fraction: _____ (%)
 HDEFD (1540) HDEF (1545)

Dimensions Available: Yes No (If Yes→) LV End-Systolic Dimension: _____ (mm) LV End-Diastolic Dimension: _____ (mm)
 DimAvail (1555) LVSD (1560) LVEDD (1565)

PA Systolic Pressure Measured: Yes No (If Yes→) PA Systolic Pressure: _____ mmHg
 PASYSMeas (1570) PASYS (1575)

Aortic Valve
 Aortic Insufficiency: None Trivial/Trace Mild Moderate Severe Not Documented
 (If not "None" ↓)
 VDInsufA (1590)

Eccentric Jet: Yes No Not Documented

VDAVccJet (1591)

Aortic Valve Disease: Yes No

VDAort (1595)

(If Yes ↓→)

Aortic Stenosis: Yes No (If Yes→) Hemodynamic/Echo data available: Yes No (If Yes ↓)

VDStenA (1600)

AoHemoDatAvail (1605)

Smallest Aortic Valve Area: _____ cm²

VDAoVA (1610)

Highest Mean Gradient: _____ mmHg

VDGradA (1615)

Maximum Aortic jet velocity (V_{max}): _____ m/s

VDVMax (1616)

AV Disease Etiology Choose PRIMARY Etiology (one):

VDAoPrimEt (1646)

<input type="checkbox"/> Bicuspid valve disease	<input type="checkbox"/> Primary Aortic Disease, Hypertensive Aneurysm
<input type="checkbox"/> Congenital (other than bicuspid)	<input type="checkbox"/> Primary Aortic Disease, Idiopathic Root Dilatation
<input type="checkbox"/> Degenerative- Calcified	<input type="checkbox"/> Primary Aortic Disease, Inflammatory
<input type="checkbox"/> Degenerative- Leaflet prolapse with or without annular dilation	<input type="checkbox"/> Primary Aortic Disease, Loeys-Dietz Syndrome
<input type="checkbox"/> Degenerative- Pure annular dilatation without leaflet prolapse	<input type="checkbox"/> Primary Aortic Disease, Marfan Syndrome
<input type="checkbox"/> Degenerative- Commissural rupture	<input type="checkbox"/> Primary Aortic Disease, Other Connective tissue disorder
<input type="checkbox"/> Degenerative- Extensive fenestration	<input type="checkbox"/> Reoperation-Failure of previous AV repair or replacement
<input type="checkbox"/> Degenerative- Leaflet perforation/hole	<input type="checkbox"/> Rheumatic
<input type="checkbox"/> Endocarditis with root abscess	<input type="checkbox"/> Supravalvular Aortic Stenosis
<input type="checkbox"/> Endocarditis without root abscess	<input type="checkbox"/> Trauma
<input type="checkbox"/> LV Outflow Tract Pathology, HOCM	<input type="checkbox"/> Tumor, Carcinoid
<input type="checkbox"/> LV Outflow Tract Pathology, Sub-aortic membrane	<input type="checkbox"/> Tumor, Myxoma
<input type="checkbox"/> LV Outflow Tract Pathology, Sub-aortic Tunnel	<input type="checkbox"/> Tumor, Papillary Fibroelastoma
<input type="checkbox"/> LV Outflow Tract Pathology, Other	<input type="checkbox"/> Tumor, Other
<input type="checkbox"/> Primary Aortic Disease, Aortic Dissection	<input type="checkbox"/> Mixed Etiology
<input type="checkbox"/> Primary Aortic Disease, Atherosclerotic Aneurysm	<input type="checkbox"/> Not Documented
<input type="checkbox"/> Primary Aortic Disease, Ehler-Danlos Syndrome	

(If Bicuspid valve disease→) Sievers Class: 0 No raphe 1 one raphe 2 two raphe Not Documented

VDAoSievers (1647)

Mitral Valve

Mitral Insufficiency: None Trivial/Trace Mild Moderate Severe Not Documented

VDInsufM (1680)

(If not "None" ↓)

Eccentric Jet: Yes No Not Documented

VDMVccJet (1681)

Mitral Valve Disease: Yes No

VDMit (1685)

(If Yes ↓→) Mitral Stenosis: Yes No (If Yes→) Hemodynamic/ Echo data available: Yes No (If Yes ↓)

VDStenM (1690)

MiHemoDatAvail (1695)

Smallest Valve Area: _____ cm²

Highest Mean Gradient:

VDMVA (1700)

_____ mmHg

VDGradM (1705)

MV Disease Etiology Choose PRIMARY Etiology (one):

VDMiPrimEt (1731)

<input type="checkbox"/> Myxomatous degeneration/prolapse	<input type="checkbox"/> Tumor, Papillary fibroelastoma
<input type="checkbox"/> Rheumatic	<input type="checkbox"/> Tumor, Other
<input type="checkbox"/> Ischemic- acute, post infarction (MI ≤ 21 days)	<input type="checkbox"/> Carcinoid
<input type="checkbox"/> Ischemic- chronic (MI > 21 days)	<input type="checkbox"/> Trauma
<input type="checkbox"/> Non-ischemic Cardiomyopathy	<input type="checkbox"/> Congenital
<input type="checkbox"/> Endocarditis	<input type="checkbox"/> Pure annular dilatation
<input type="checkbox"/> Hypertrophic Obstructive Cardiomyopathy (HOCM)	<input type="checkbox"/> Reoperation-Failure of previous MV repair or replacement
<input type="checkbox"/> Tumor, Carcinoid	<input type="checkbox"/> Mixed Etiology
<input type="checkbox"/> Tumor, Myxoma	<input type="checkbox"/> Not Documented

MV Lesion Choose PRIMARY Lesion (one):

VDMiPrimLes (1746)

<input type="checkbox"/> Leaflet prolapse, posterior	<input type="checkbox"/> Papillary muscle elongation
<input type="checkbox"/> Leaflet prolapse, bileaflet	<input type="checkbox"/> Papillary muscle rupture
<input type="checkbox"/> Leaflet prolapse, anterior	<input type="checkbox"/> Leaflet thickening

<input type="checkbox"/> Leaflet prolapse, unspecified	<input type="checkbox"/> Leaflet retraction
<input type="checkbox"/> Elongated/ruptured chord(s)/Flail	<input type="checkbox"/> Chordal tethering
<input type="checkbox"/> Annular dilatation	<input type="checkbox"/> Chordal thickening/retraction/fusion
<input type="checkbox"/> Leaflet calcification	<input type="checkbox"/> Commissural fusion
<input type="checkbox"/> Leaflet perforation/hole	<input type="checkbox"/> Mixed lesion
<input type="checkbox"/> Mitral annular calcification	<input type="checkbox"/> Not Documented

Tricuspid Valve
Tricuspid Insufficiency: None Trivial/Trace Mild Moderate Severe Not Documented
VDInsuffT (1775)
Tricuspid Annular Echo Measurement Available: Yes No (If Yes→) Tricuspid Diameter: _____ cm
VDTrAnnMeas (1777) VDTrAnnSize (1778)
Tricuspid Valve Disease: Yes No (If Yes→) Tricuspid Stenosis: Yes No
VDTr (1780) VDStenT (1785)

(If Tricuspid Disease Yes →) TV Etiology: Choose PRIMARY Etiology (one):
VDTrPrimEt (1811)

<input type="checkbox"/> Functional/ secondary	<input type="checkbox"/> Rheumatic
<input type="checkbox"/> Endocarditis	<input type="checkbox"/> Tumor
<input type="checkbox"/> Carcinoid	<input type="checkbox"/> Trauma
<input type="checkbox"/> Congenital	<input type="checkbox"/> Reoperation-Failure of previous TV repair or replacement
<input type="checkbox"/> Degenerative	<input type="checkbox"/> Mixed etiology
<input type="checkbox"/> Pacing wire/catheter induced dysfunction	<input type="checkbox"/> Not Documented

Pulmonic Valve
Pulmonic Insufficiency: None Trivial/Trace Mild Moderate Severe Not Documented
VDInsuffP (1820)
Pulmonic Valve Disease: Yes No
VDPulm (1825)
(If Yes →) RVEDD Known: Yes No (If Yes →) RVEDD Indexed to BSA: _____ cm²
RVEDDKnown (1830) RVEDD (1835)
(If Yes →) Pulmonic Stenosis: Yes No (If Yes→) Hemodynamic /Echo data available: Yes No (If Yes ↓)
VDStenP (1840) PuHemoDatAvail (1845)
Highest Mean Gradient : _____ mmHg
VDGradP (1850)
(If Yes→) Etiology: (choose one)
VDPuEt (1855)
 Acquired Reoperation-Failure of previous PV repair or replacement
 Congenital, s/p Tetralogy of Fallot (TOF) repair Mixed etiology
 Congenital, no prior Tetralogy of Fallot (TOF) repair Not Documented

I. Operative

Surgeon: _____ Surgeon NPI: _____
Surgeon (1955) SurgNPI (1960)

Taxpayer Identification Number: _____
TIN (1965)

Indicate whether the STS Risk Calculator score was discussed with the patient/family prior to surgery.
RiskDiscussed (1966)
 Yes, STS risk calculator score was calculated and discussed with the patient/family prior to surgery as documented in the medical record
 No, STS risk calculator score was available for scheduled procedure but not discussed with the patient/family prior to surgery or the discussion was not documented
 NA, Not applicable (emergent or salvage case, or no risk model available for this procedure)

Incidence: _____
Incident (1970)
 First cardiovascular surgery Third re-op cardiovascular surgery
 First re-op cardiovascular surgery Fourth or more re-op cardiovascular surgery
 Second re-op cardiovascular surgery NA- not a cardiovascular surgery

Status: Elective Urgent Emergent Emergent Salvage
Status (1975)

(If Urgent or Emergent choose the most pressing reason↓)
Urgent / Emergent reason:
UrgEmergRsn (1990)
 AMI PCI Incomplete without clinical deterioration
 Anatomy PCI or attempted PCI with Clinical Deterioration
 Aortic Aneurysm Pulmonary Edema
 Aortic Dissection Pulmonary Embolus
 CHF Rest Angina

- | | |
|---|--|
| <input type="checkbox"/> Device Failure | <input type="checkbox"/> Shock, Circulatory Support |
| <input type="checkbox"/> Diagnostic/Interventional Procedure Complication | <input type="checkbox"/> Shock, No Circulatory Support |
| <input type="checkbox"/> Endocarditis | <input type="checkbox"/> Syncope |
| <input type="checkbox"/> Failed Transcatheter Valve Therapy , acute annular disruption | <input type="checkbox"/> Transplant |
| <input type="checkbox"/> Failed Transcatheter Valve Therapy , acute device malposition | <input type="checkbox"/> Trauma |
| <input type="checkbox"/> Failed Transcatheter Valve Therapy , subacute device dysfunction | <input type="checkbox"/> USA |
| <input type="checkbox"/> IABP | <input type="checkbox"/> Valve Dysfunction |
| <input type="checkbox"/> Infected Device | <input type="checkbox"/> Worsening CP |
| <input type="checkbox"/> Intracardiac mass or thrombus | <input type="checkbox"/> Other |
| <input type="checkbox"/> Ongoing Ischemia | |

Was case previously attempted during this admission, but canceled: Yes No

PCancCase (1995)

(If Yes→) Date of previous case: ___/___/___ (mm/dd/yyyy)

PCancCaseDt (2000)

Timing of previous case: Prior to induction of anesthesia After induction, prior to incision After incision made

PCancCaseTmg (2005)

Reason previous case was canceled: Anesthesiology event Cardiac arrest Equipment/supply issue Access Issue

PCancCaseRsn (2010)

Unanticipated tumor Donor Organ Unacceptable Abnormal Labs Other

Planned previous procedure: CABG Yes No Valve, Surgical Yes No

PCancCaseCAB (2015)

PCancCaseValSur (2030)

Mechanical Assist Device Yes No

PCancCaseMech (2020)

Valve, Transcatheter Yes No

PCancCaseValTrans (2035)

Other Non-cardiac Yes No

PCancCaseONC (2025)

Other Cardiac Yes No

PCancCaseOC (2040)

Was the current procedure canceled: Yes No

CCancCase (2050)

(If Yes→) Canceled Timing: Prior to induction of anesthesia After induction, prior to incision After incision made

CCancCaseTmg (2055)

Canceled Reason: Anesthesiology event Cardiac arrest Equipment/supply issue Access Issue

CCancCaseRsn (2060)

Unanticipated tumor Donor Organ Unacceptable Abnormal Labs Other

Planned procedure: CABG Yes No Valve, Surgical Yes No

CCancCaseCAB (2065)

CCancCaseValSur (2085)

Mechanical Assist Device Yes No

CCancCaseMech (2075)

Valve, Transcatheter Yes No

CCancCaseValTrans (2090)

Other Non-cardiac Yes No

CCancCaseONC (2080)

Other Cardiac Yes No

CCancCaseOC (2095)

Initial Operative Approach: Full conventional sternotomy Left Thoracotomy Thoracoabdominal Incision

OPApp (2100)

Partial sternotomy

Right Thoracotomy

Percutaneous

Transverse sternotomy

Bilateral Thoracotomy

Port Access

Right or left parasternal incision

Limited (mini) Thoracotomy , right

Other

Sub-xiphoid

Limited (mini) Thoracotomy , left

None (canceled case)

Sub-Costal

Limited (mini) Thoracotomy , bilateral

Approach converted during procedure: Yes, planned Yes, unplanned No

ApproachCon (2105)

Robot Used: Yes No (If Yes →) Used for entire operation Used for part of the operation

Robotic (2110)

RobotTim (2115)

Coronary Artery Bypass: Yes, planned Yes, unplanned due to surgical complication

OpCAB (2120)

Yes, unplanned due to unsuspected disease or anatomy No (If "Yes" complete Section J)

Valve Surgery: Yes No (If "Yes" complete Section K)

(If Yes →) Did the surgeon provide input for valve surgery data abstraction? Yes No

OpValve (2125)

OpValSurgInput (2126)

Aorta procedure Performed: Yes, planned Yes, unplanned due to surgical complication

AortProc (2128)

Yes, unplanned due to unsuspected disease or anatomy No (If "Yes" complete Section M 2)

(If Yes →) Did the surgeon provide input for aortic surgery data abstraction? Yes No

AortProcSurgInput (2129)

Other Cardiac Procedure: Yes, planned Yes, unplanned due to surgical complication

OpOCard (2140)

Yes, unplanned due to unsuspected disease or anatomy No (If "Yes" complete Section M)

Lt. Atrial Yes No

CanVenStLfA
(2380)

Cardiopulmonary Bypass Time (minutes): _____
PerfusTm (2400)

Circulatory Arrest: Yes No (If Yes ↓)
CircArr (2405)

Circulatory Arrest Without Cerebral Perfusion Time: _____ (min)
DHCATm (2410)

Circulatory Arrest With Cerebral Perfusion: Yes No
CPerfUtil (2415)

(If Yes →) Cerebral Perfusion Time: _____ (min)
CPerfTime (2420)

Cerebral Perfusion Type: Antegrade Retrograde Both antegrade and retrograde
CPerfTyp (2425)

Total Circulatory Arrest Time: _____ (System Calculation)
TotCircArrTm (2426)

Aortic Occlusion:
AortOccl (2430)

None – beating heart
 None – fibrillating heart

Aortic Cross clamp
 Balloon Occlusion

(If “Aortic cross clamp” or “Balloon occlusion” →):

Cross Clamp Time: _____ (min)
XClampTm (2435)

Cardioplegia Delivery:
CplegiaDeliv (2440)

None Antegrade Retrograde Both

(If “Antegrade”, “Retrograde” or “Both” →) Type of cardioplegia used: Blood Crystalloid Both Other
CplegiaType (2445)

Cerebral Oximetry Used: Yes No
CerOxUsed (2450)

Diffuse Aortic Calcification (Porcelain Aorta) : Yes No
ConCalc (2490)

Assessment of Ascending Aorta/Arch for atheroma/plaque: Yes No Not Reported (If Yes ↓)
AsmtAscAA (2495)

Assessment method: TEE Epiaortic ultrasound CT scan Other diagnostic modality

AsmtAoDxMeth (2497)

Assessment of Aorta Plaque: Normal Aorta/No or minimal plaque

Extensive intimal thickening

AsmtAoDx (2500) Protruding Atheroma < 5 mm

Protruding Atheroma >= 5 mm

Mobile plaques

Not documented

Aortic Condition Altered Plan: Yes No
AsmtAPln (2505)

Intraop Blood Products Refused: Yes No
IBldProdRef (2510)

(If No →) Intraop Blood Products: Yes No
IBldProd (2515)

(If Yes →) Red Blood Cell Units: _____
IBdRBCU (2520)

Platelet Units: _____
IBdPlatU (2530)

Fresh Frozen Plasma Units: _____
IBdFFPU (2525)

Cryoprecipitate Units: _____
IBdCryoU (2535)

Intraop Clotting Factors : Yes, Factor VIIa Yes, FEIBA Yes, Composite No
IntraClotFact (2545)

Intraop Prothrombin Complex concentrate: Yes No
IntraopProComCon (2546)

Intraop Antifibrinolytic Medications: Epsilon Amino-Caproic Acid: Yes No
IMedEACA (2550)

Tranexamic Acid: Yes No
IMedTran (2555)

Intraoperative TEE Performed post procedure: Yes No (If Yes ↓)
InOpTEE (2560)

Highest level aortic insufficiency found:

PrepAR (2565)

None Trivial/Trace Mild Moderate Severe Not Documented

Mean Aortic Gradient: _____

PrepAGradM (2566)

Aortic Paravalvular leak:

PrepAPVL (2567)

None Trivial/Trace Mild Moderate Severe Not Documented

Highest level Mitral insufficiency found:

PrepMR (2570)

None Trivial/Trace Mild Moderate Severe Not Documented

Mean Mitral Gradient: _____

PRepMGradM (2571)

Mitral Paravalvular leak:

PRepMPVL (2572)

None Trivial/Trace Mild Moderate Severe Not Documented

Highest level Tricuspid insufficiency found:

PRepTR (2575)

None Trivial/Trace Mild Moderate Severe Not Documented

Mean Tricuspid Gradient: _____

PRepTGradM (2576)

Tricuspid Paravalvular leak:

PRepTPVL (2577)

None Trivial/Trace Mild Moderate Severe Not Documented

Ejection Fraction Measured post procedure: Yes No (If Yes →)

Ejection Fraction: _____

PPEFMeas (2581)

PPEF (2582)

Surgery followed by a planned PCI: Yes No

PPPlannedPCI (2606)

J. Coronary Bypass

(If Coronary Artery Bypass = Yes ↓)

Internal Mammary Artery (arteries) used: Yes No (If yes→) Total Number of Distal Anastomoses with IMA conduits: _____

IMAUsed (2626)

NumIMADA (2628)

(If no→) Reason for no IMA: Subclavian stenosis Previous mediastinal radiation No (bypassable) LAD disease

NoIMARsn (2627)

Previous cardiac or thoracic surgery Emergent or salvage procedure Other

(If yes→) Left IMA: Yes, pedicle Yes, skeletonized No

LeftIMA (2629)

(If not no→) LIMA Harvest technique: Direct Vision (open) Thoracoscopy Combination Robotic Assist

LIMAHarvTech (2630)

Right IMA: Yes, pedicle Yes, skeletonized No

RightIMA (2631)

(If not no→) RIMA Harvest technique: Direct Vision (open) Thoracoscopy Combination Robotic Assist

RIMAHarvTech (2632)

Radial Artery (arteries) used: Yes No (If yes→) Total Number of Distal Anastomoses with radial artery conduits: _____

RadialArtUsed (2633)

NumRadDA (2634)

(If yes→) Radial Artery Harvest Technique: Endoscopic Direct Vision (open) Both

RadHTech (2635)

Radial Artery Harvest and Prep Time: _____ (minutes)

RadHarvPrepTm (2636)

Venous Conduit(s) used: Yes No (If yes→) Total Number of Distal Anastomoses with venous conduits: _____

VenousCondUsed (2637)

DistVein (2638)

(If yes→) Vein Harvest Technique: Endoscopic Direct Vision (open) Both Cryopreserved

DistVeinHTech (2639)

Vein Harvest and Prep Time: _____ (minutes)

SaphHarPrepTm (2640)

Number of Distal Anastomoses : with other arterial conduits: _____ with arterial- venous composite conduits: _____

NumOArtD (2641)

NumArtVenComp (2650)

with venous -arterial composite conduits: _____ with arterial- arterial composite conduits: _____

NumVenArtComp (2651)

NumArtArtComp (2652)

(Note: the total number of distals above should equal the number of columns in the CABG Grid)

Proximal Technique: Single Cross Clamp Partial Occlusion Clamp Anastomotic Assist Device None (isolated in situ mammary)

ProxTech (2710)

CABG NUMBER (one column per distal insertion)		1	2	3	4	5	6	7	8	9	10
GRAFT	Yes CAB (02-10)	NA	2770	2830	2890	2950	3010	3070	3130	3190	3250
	No										
DISTAL INSERTION SITE	Left Main CABDistSite (01-10)	2730	2790	2850	2910	2970	3030	3090	3150	3210	3270
	Proximal LAD										
	Mid LAD										
	Distal LAD										
	Diagonal 1										
	Diagonal 2										
	Diagonal 3										
	Circumflex										
	Obtuse Marginal 1										
	Obtuse Marginal 2										
	Obtuse Marginal 3										
	Ramus										

	RCA										
	Acute Marginal (AM)										
	Posterior Descending (PDA)										
	Posterolateral (PLB)										
	Other										
PROXIMAL SITE	In Situ Mammary CABProximalSite (01-10)	2740	2800	2860	2920	2980	3040	3100	3160	3220	3280
	Ascending aorta										
	Descending aorta										
	Subclavian artery										
	Innominate artery										
	T-graft off SVG										
	T-graft off Radial										
	T-graft off LIMA										
	T-graft off RIMA										
	Natural Y vein graft										
Other											
CONDUIT	Vein graft CABConduit (01-10)	2750	2810	2870	2930	2990	3050	3110	3170	3230	3290
	In Situ LIMA										
	In Situ RIMA										
	Free IMA										
	Composite artery-vein										
	Radial artery										
	Other arteries, homograft										
	Synthetic graft										
DISTAL POSITION	End to Side CABDistPos (01-10)	2755	2815	2875	2935	2995	3055	3115	3175	3235	3295
	Sequential (side to side)										
ENDARTERECTOMY	Yes CABEndArt(01-10)	2760	2820	2880	2940	3000	3060	3120	3180	3240	3300
	No										
VEIN PATCH ANGIOPLASTY	Yes CABVeinPatAng (01-10)	2765	2825	2885	2945	3005	3065	3125	3185	3245	3305
	No										

K. Valve Surgery (If Valve Surgery=Yes ↓)

Valve Prosthesis Explant: Yes No (If Yes ↓) ValExp (3310)

Explant Position: Aortic Mitral Tricuspid Pulmonic ValExpPos (3315)

Explant Type: Mechanical Valve Bioprosthetic Valve Homograft Annuloplasty Device
ValExpTyp (3320) Leaflet Clip Transcatheter Device Other Unknown

Explant Etiology: Endocarditis Incompetence Prosthetic Deterioration Thrombosis
ValExpEt (3325) Failed Repair Pannus Sizing/Positioning issue Other
 Hemolysis Paravalvular leak Stenosis Unknown

Explant Device known: Yes No (If Yes→) Explant model#: _____ Unique Device Identifier (UDI): _____
ValExpDevKnown (3330) ValExpDev (3335) ValExpUDI (3340)

Second Valve Prosthesis Explant: Yes No (If Yes↓)
ValExp2 (3350)

Explant Position: Aortic Mitral Tricuspid Pulmonic
ValExpPos2 (3355)

Explant Type: Mechanical Valve Bioprosthetic Valve Homograft Annuloplasty Device
ValExpTyp2 (3360) Leaflet Clip Transcatheter Device Other Unknown

Explant Etiology: Endocarditis Incompetence Prosthetic Deterioration Thrombosis
ValExpEt2 (3365) Failed Repair Pannus Formation Sizing/Positioning issue Other
 Hemolysis Paravalvular leak Stenosis Unknown

Explant Device known: Yes No (If Yes→) Explant model#: _____ Unique Device Identifier (UDI): _____
ValExpDevKnown2 (3370) ValExpDev2 (3375) ValExpDevUDI (3380)

Aortic Valve Procedure Performed: Yes, planned Yes, unplanned due to surgical complication
VSAV (3390) Yes, unplanned due to unsuspected disease or anatomy No (If Yes ↓)

Procedure Performed:
VSAVPr (3395)

Replacement (If Replacement↓)

Transcatheter Valve Replacement: Yes No (If Yes ↓)
VSTCV (3400)

Approach: Transapical Transaxillary Transfemoral Transaortic Subclavian Other
VSTCVR (3405)

Surgical valve Replacement: Yes No
VSAVSurgRep (3407)

(If Yes →) Device type: Mechanical Bioprosthetic Surgeon fashioned pericardium (Ozaki) Other
VSAVSurgType (3408)

(If Bioprosthetic →) Valve type: Stented Stentless subcoronary valve only Sutureless/rapid deployment
VSAVSurgBioT (3409)

Repair/Reconstruction (If Repair/Reconstruction ↓)

Repair Type (Select all that apply)

Commissural suture annuloplasty VSAVRComA (3410)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Ring annuloplasty VSAVRRingA (3435)	<input type="checkbox"/> Yes <input type="checkbox"/> No
External Suture Annuloplasty VSAVRExSutAn (3411)	<input type="checkbox"/> Yes <input type="checkbox"/> No	(If Yes →) Type: VSAVRRingATy <input type="checkbox"/> External Ring <input type="checkbox"/> Internal Ring (3436)	
Leaflet plication VSAVRLPlic (3415)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Leaflet resection suture VSAVRLResect (3440)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Nodular Release VSAVRNodRel (3416)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Leaflet Shaving VSAVRLeafShav (3441)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Leaflet free edge reinforcement (PTFE) VSAVRPTFE (3420)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Leaflet pericardial patch VSAVRLPPatch (3445)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Leaflet commissural resuspension suture VSAVRComRS (3425)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Leaflet debridement VSAVRDeb (3450)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Division of fused leaflet raphe VSAVRRaphe (3430)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Repair of periprosthetic leak VSAVRPeriLeak (3455)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Aortic annular enlargement with patch Yes No
AnlrEnl (3460)

(If Yes →) Technique: Nicks-Nunez Manougian Konno Other Unknown
AnlrEnlTech (3461)

Root Procedure Yes No (If Yes ↓) (For AV surgery involving the aortic root → also complete section M-2)
VSAVRoot (3462)

Root Replacement with coronary Ostial Reimplantation (Bentall) Yes No
VSAVRootOReimp (3463)

Type: VSAVRootOReimpTy (3464)

(If Yes →) Mechanical Bioprosthetic
 Autograft with native pulmonary valve (Ross procedure) Homograft root replacement

(If Bioprosthetic →) Stented valve composite graft Stentless biologic full root
VSAVRepBioTy (3465)

Valve Sparing root operation: Yes No (If Yes ↓)
VSAVSparRt (3466)

VSAVSparRtOp (3467)

- Resuspension AV without replacement of ascending aorta
- Resuspension AV with replacement of ascending aorta
- Valve sparing root reimplantation (David)
- Valve sparing root remodeling (Yacoub)
- Valve sparing root reconstruction (Florida Sleeve)

Major root reconstruction/ debridement with or without pericardial patch Yes No
VSAVRootRecon (3468)

Patch used: Yes No (If Yes →) Patch type: Synthetic Bioprosthetic Autologous
VSAVPat (3469) VSAVPatTy (3470)

Aortic Valve Implant: Yes No (If Yes ↓)
AorticImplant (3472)

Aortic valves/valve repair devices only, use section M 2 for root devices

Implant Model Number: _____
VSAoIm (3480)

Implant Size: _____
VSAoImSz (3485)

Unique Device identifier (UDI): _____
VSAoImUDI (3490)

Mitral Valve Procedure Performed: Yes, planned Yes, unplanned due to surgical complication
VSMV (3495) Yes, unplanned due to unsuspected disease or anatomy No (If Yes ↓)

Procedure Performed:
VSMVPr (3500)

Repair (If Repair ↓)

Repair Approach: Transcatheter Surgical
VSMVRepApp (3501)

If Surgical (Select all that apply ↓)

Annuloplasty: Yes No
VSMitRAnnulo (3505)

Leaflet resection: Yes No (If Yes ↓)
VSMitRLeafRes (3510)

Resection Type: Triangular Quadrangular Other
VSLeafResTyp (3515)
Anterior resection: Yes No
VSLeafAntRes (3517)
(If Yes→) Location documented: Yes No (If Yes↓)
VSLeafAntResLocD (3518)
Anterior leaflet resection location: A1 Yes No A2 Yes No A3 Yes No
VSLeafAntResA1 (3519) VSLeafAntResA2 (3520) VSLeafAntResA3 (3521)

Posterior Resection: Yes No
VSLeafPostRes (3522)
Resection Location(s): (If Yes→) Location documented: Yes No (If Yes↓)
VSLeafPostResLocD (3523)
Posterior leaflet resection location: P1 Yes No P2 Yes No P3 Yes No
VSLeafPostResP1 (3524) VSLeafPostResP2 (3525) VSLeafPostResP3 (3526)

Commissure Resection: Yes No (If Yes↓)
VSLeafComRes (3527)
Commissural resection location: Medial (C2) Lateral (C1) Both Not Documented
VSLeafComResLoc (3528)

Neochords (PTFE): Yes No (If Yes↓)
VSMitRPTFE (3532)
Anterior Neochords: Yes No
VSNeoAnt (3534)
(If Yes→) Location documented: Yes No (If Yes↓)
VSNeoAntLocD (3535)
Anterior neochord location: A1 Yes No A2 Yes No A3 Yes No
VSNeoAntA1 (3536) VSNeoAntA2 (3537) VSNeoAntA3 (3538)

Posterior Neochords: Yes No
VSNeoPost (3539)
Neochord Location(s): (If Yes→) Location documented: Yes No (If Yes↓)
VSNeoPostLocD (3540)
Posterior Neochord location: P1 Yes No P2 Yes No P3 Yes No
VSNeoPostP1 (3541) VSNeoPostP2 (3542) VSNeoPostP3 (3543)

Commissure Neochords: Yes No (If Yes↓)
VSNeoCom (3544)
Commissure Neochord location: Medial (C2) Lateral (C1) Both Not Documented
VSNeoComLoc (3545)

Chordal/ Leaflet transfer: Yes No (If Yes↓)
VSMitRChord (3550)
 Anterior Chordal/Leaflet transfer: Yes No
VSChorLfAnt (3551)
(If Yes→) Location documented: Yes No (If Yes↓)
VSChorLfAntLocD (3552)
Anterior chordal/leaflet transfer location: A1 Yes No A2 Yes No A3 Yes No
VSChorLfAntA1 (3553) VSChorLfAntA2 (3554) VSChorLfAntA3 (3555)

Posterior Chordal/Leaflet transfer: Yes No
VSChorLfPost (3556)
Chordal/ Leaflet Transfer Location(s): (If Yes→) Location documented: Yes No (If Yes↓)
VSChorLfPostLocD (3557)
Posterior chordal/leaflet transfer location: P1 Yes No P2 Yes No P3 Yes No
VSChorLfPostP1 (3558) VSChorLfPostP2 (3559) VSChorLfPostP3 (3560)

Commissure Chordal/Leaflet transfer: Yes No (If Yes↓)
VSChorLfCom (3561)
Commissural chordal/leaflet transfer location: Medial (C2) Lateral (C1) Both Not Documented
VSChorLfComLoc (3562)

Folding Plasty: Yes No
VSMitRFold (3565)
Sliding Plasty: Yes No
VSMitRSlidP (3566)
Annular decalcification/ debridement: Yes No
VSMitRADecalc (3567)
Leaflet extension/replacement patch: Yes No
VSMitRLeafERP (3568)
(If Yes→) Patch Location: Anterior Posterior Both Not Documented
VSMitRLeafERPLoc (3569)

Edge to edge repair: Yes No
VSMitREdge (3570)
Mitral commissurotomy: Yes No
VSMitRMitComm (3580)
Mitral commissuroplasty: Yes No
VSMitRMitCplasty (3585)
Mitral cleft repair: (scallop closure): Yes No
VSMitRMitCleft (3590)
Mitral paraprosthetic leak repair: Yes No
VSMitParaprosLeak (3591)

Replacement (If Replacement ↓)
 Mitral repair attempted prior to replacement: Yes No
 MitralIntent (3600)
 Mitral chords preserved: Anterior Posterior Both None
 VSChorPres (3605)
 Transcatheter replacement: Yes No
 VSTCVMit (3610)

Implant: Yes No (If Yes

MitralImplant (3615)

Implant type: Mechanical valve Bioprosthetic valve Annuloplasty device Mitral Leaflet clip Transcatheter device
 MitralImplantTy (3620) Surgically implanted transcatheter device Other

Implant Model Number: _____

VSMiIm (3625)

Implant Size: _____

VSMiImSz (3630)

Unique Device identifier (UDI): _____

VSMiImUDI (3635)

Tricuspid Valve Procedure Performed: Yes, planned Yes, unplanned due to surgical complication

VSTV (3640)

Yes, unplanned due to unsuspected disease or anatomy No (If Yes ↓)

Repair: Yes No (If Yes ↓)

VSTrRepair (3646)

Annuloplasty Yes No (If Yes ↓)

VSTrRepAnnulo (3647)

Type of Annuloplasty: Pericardium Suture Prosthetic Ring Prosthetic Band Other

OpTricusAnTy (3648)

Leaflet Resection: Yes No

VSTrLeafRes (3649)

Replacement: Yes No

VSTrReplace (3650)

(If Yes →)

Transcatheter Replacement: Yes No

VSTCVTri (3652)

Valvectomy: Yes No

VSTrValvec (3653)

Implant: Yes No (If Yes ↓)

TricuspidImplant (3660)

Implant Type:

TricusImplantTy (3665)

Mechanical Valve

Annuloplasty

Device

Bioprosthetic Valve

Transcatheter Device

Homograft

Other

Implant Model Number: _____

VSTrIm (3670)

Size: _____

VSTrImSz (3675)

Unique Device Identifier (UDI): _____

VSTrImUDI (3680)

Pulmonic Valve Procedure Performed: Yes, planned Yes, unplanned due to surgical complication

VSPV (3685)

Yes, unplanned due to unsuspected disease or anatomy No (If Yes ↓)

Procedure Performed:

OpPulm (3690)

Repair/Leaflet Reconstruction

Replacement (If Replacement →)

Valvectomy

Implant: Yes No (If Yes ↓)

PulmonicImplant (3700)

Implant Type:

VSPuTypeImp (3701)

(If Surgeon Fashioned →)

Surgeon Fashioned Commercially Supplied

Material: PTFE (Gore-Tex) Pericardium Other

VSPuImpMat (3702)

(If Commercially Supplied →)

Device Type:

PulmonicImplantTy (3705)

Mechanical Valve

Bioprosthetic Valve

Transcatheter Device

Annuloplasty Device

Homograft

Other

Implant Model Number: _____

VSPuIm (3710)

Size: _____

VSPuImSz (3715)

Unique Device Identifier (UDI): _____

VSPuImUDI (3720)

L. Mechanical Cardiac Assist Devices

Intra-Aortic Balloon Pump (IABP): Yes No (If Yes ↓)

IABP (3725)

IABP Insertion: Preop Intraop Postop

IABPWhen (3730)

Primary Reason for Insertion: Hemodynamic Instability Procedural Support Unstable Angina

IABPInd (3735)

CPB Weaning Failure Prophylactic Other

Catheter Based Assist Device Used: Yes No (If Yes ↓)
CathBasAssist (3745)

Type: RV LV BiV
CathBasAssistTy (3755)

When Inserted: Preop Intraop Postop
CathBasAssistWhen (3760)

Primary Reason for Insertion: Hemodynamic instability CPB weaning failure PCI failure Procedural support Other
CathBasAssistInd (3765)

ECMO: Venovenous Venovenous converted to Venovenous Venovenous converted to Venovenous No (If Yes ↓)
ECMO (3775)

ECMO Initiated: Preop Intraop Postop Non-operative
ECMOWhen (3780)

Clinical Indication for ECMO: Cardiac Failure Respiratory Failure Hypothermia Rescue/salvage Other
ECMOInd (3785)

L.2 Ventricular Assist Devices

(Use Key to complete table below -will be dropdown lists in software)

Timing: 1. Pre-Operative (during same hospitalization but not same OR trip as CV surgical procedure)
 2. Stand-alone VAD procedure
 3. In conjunction with CV surgical procedure (same trip to the OR)- planned
 4. In conjunction with CV surgical procedure (same trip to the OR)- unplanned
 5. Post-Operative (after surgical procedure during reoperation)

Indication: 1. Bridge to Transplantation **Type:** 1. Right VAD (RVAD) **Reason:** 1. Cardiac Transplant
 2. Bridge to Recovery 2. Left VAD (LVAD) 2. Recovery
 3. Destination 3. Biventricular VAD 3. Device Transfer
 4. Post cardiotomy Ventricular Failure (BiVAD) 4. Device-Related Infection
 5. Device Malfunction 4. Total Artificial Heart 5. Device Malfunction
 6. End of (device) Life (TAH) 6. End of (device) Life
 7. Salvage

Device: See VAD list

Was patient admitted with VAD Yes No
PrevVAD (3790)

(If Yes →) Previous VAD implanted at another facility Yes No
PrevVADF (3795)
 Insertion date: __/__/____
PrevVADD (3800)
 Indication:
PrevVADIn (3805)
 Type:
PrevVADTy (3810)

Device Model Number: _____ **UDI:** _____
PrevVADDevice (3815) **PrevVADUDI (3820)**

Previous VAD Explanted During This Admission: Yes, not during this procedure
 Yes, during this procedure
 No
PrevVADExp (3825)

(If “Yes, not during this procedure” or “Yes, during this procedure” →) Reason:
PrevVADExpRsn (3830)
 Date: __/__/____
 (If “Yes, not during this procedure” →) **PrevVADExpDt (3835)**

Ventricular Assist Device Implanted during this hospitalization Yes No
VADImp (3840)

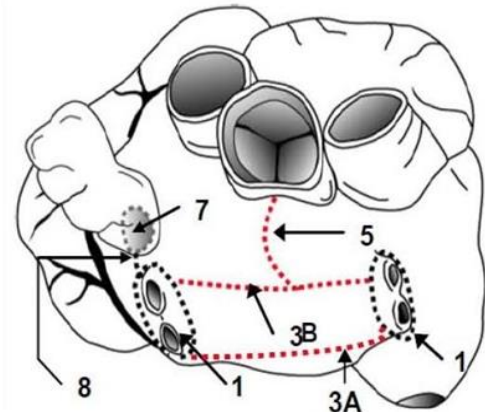
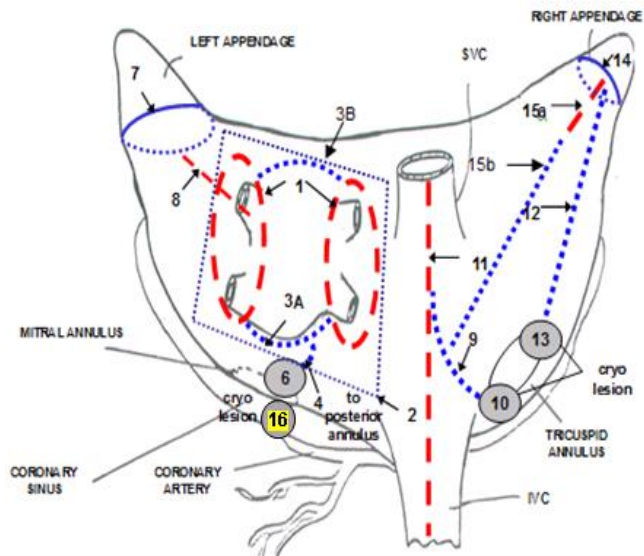
(If Yes, provide data on up to 3 separate devices implanted ↓)

VAD IMPLANT(s)	Initial implant	2nd device implanted? VImp2 (3895) <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓)	3rd Device implanted? VImp3 (3950) <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓)
Timing	VADImpTmg (3845)	VADImpTmg2 (3900)	VADImpTmg3 (3955)
Indication	VADInd (3850)	VADInd2 (3905)	VADInd3 (3960)
Type	VImpTy (3855)	VImpTy2 (3910)	VImpTy3 (3965)
Device	VProdTy (3860)	VProdTy2 (3915)	VProdTy3 (3970)

Implant Date	___/___/___ VImpDt (3865)	___/___/___ VImpDt2 (3920)	___/___/___ VImpDt3 (3975)
UDI	_____ VImpUDI (3870)	_____ VImpUDI2 (3925)	_____ VImpUDI3 (3980)
VAD was explanted	<input type="checkbox"/> Yes, not during this procedure <input type="checkbox"/> Yes, during this procedure <input type="checkbox"/> No VExp (3875)	<input type="checkbox"/> Yes, not during this procedure <input type="checkbox"/> Yes, during this procedure <input type="checkbox"/> No VExp2 (3930)	<input type="checkbox"/> Yes, not during this procedure <input type="checkbox"/> Yes, during this procedure <input type="checkbox"/> No VExp3 (3985)
Reason (If “Yes, not during this procedure” or “Yes, during this procedure” →)	VExpRsn (3880)	VExpRsn2 (3935)	VExpRsn3 (3990)
Date (If “Yes, not during this procedure” →)	___/___/___ VExpDt (3885)	___/___/___ VExpDt2 (3940)	___/___/___ VExpDt3 (3995)

M. Other Cardiac Procedures	
<i>(If Other Cardiac Procedure = Yes ↓) See Proc ID Table to determine whether these procedures impact isolate procedure categories</i>	
ASD repair- PFO type <input type="checkbox"/> Yes <input type="checkbox"/> No OCarASDPFO (4030)	Myocardial Stem Cell Therapy: <input type="checkbox"/> Yes <input type="checkbox"/> No OCarStemCell (4080)
ASD Repair- secundum or sinus venosus <input type="checkbox"/> Yes <input type="checkbox"/> No OCarASDSec (4035)	Pulmonary <input type="checkbox"/> Yes, Acute <input type="checkbox"/> Yes, Chronic <input type="checkbox"/> No Thromboembolectomy: OCpulThromDis (4085)
AFib Intracardiac lesions (If yes, complete M-1) <input type="checkbox"/> Yes <input type="checkbox"/> No OCarAFibIntraLes (4040)	Subaortic Stenosis Resection: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) OCarSubaStenRes (4090)
AFib Epicardial lesions (If yes, complete M-1) <input type="checkbox"/> Yes <input type="checkbox"/> No OCarAFibEpLes (4045)	Type : <input type="checkbox"/> Muscle <input type="checkbox"/> Ring <input type="checkbox"/> Membrane <input type="checkbox"/> Web <input type="checkbox"/> Not Reported OCarSubaStenResTy (4100)
Atrial Appendage procedure: <input type="checkbox"/> RAA <input type="checkbox"/> LAA <input type="checkbox"/> Both <input type="checkbox"/> No (If not No ↓) OCarAAProc (4050)	Surgical Ventricular Restoration: <input type="checkbox"/> Yes <input type="checkbox"/> No OCarSVR (4105)
Indicate method for atrial appendage ligation/exclusion: <input type="checkbox"/> Intra-atrial oversewing <input type="checkbox"/> Epicardial Suture Ligation <input type="checkbox"/> Amputation with oversewing OCarAAMeth (4051) <input type="checkbox"/> Stapler (cutting) <input type="checkbox"/> Stapler (noncutting) <input type="checkbox"/> Epicardially applied occlusion device If epicardial applied occlusion device → Model: <input type="checkbox"/> AtriClip <input type="checkbox"/> Lariat <input type="checkbox"/> Other OCarAAModel (4052) UDI: _____ OCarAAUDI (4053)	
Arrhythmia Device: <input type="checkbox"/> Pacemaker <input type="checkbox"/> Pacemaker with CRT OCarACD (4055) <input type="checkbox"/> ICD <input type="checkbox"/> ICD with CRT <input type="checkbox"/> Implantable Recorder <input type="checkbox"/> None	Transmyocardial revascularization (TMR): <input type="checkbox"/> Yes <input type="checkbox"/> No OCarLasr (4110) Tumor: <input type="checkbox"/> Myxoma <input type="checkbox"/> Fibroelastoma <input type="checkbox"/> Hypernephroma <input type="checkbox"/> Sarcoma OCtumor (4115) <input type="checkbox"/> Other <input type="checkbox"/> No
Lead Insertion: <input type="checkbox"/> Yes <input type="checkbox"/> No OCarLeadInsert (4060)	Transplant, Cardiac : <input type="checkbox"/> Yes <input type="checkbox"/> No OCarCrTx (4120)
Lead Extraction : OCarACDLE (4065) <input type="checkbox"/> Yes, planned <input type="checkbox"/> Yes, unplanned due to surgical complication <input type="checkbox"/> Yes, unplanned due to unsuspected disease or anatomy <input type="checkbox"/> No	Trauma, Cardiac : <input type="checkbox"/> Yes <input type="checkbox"/> No OCarTrma (4125)
Congenital Defect Repair: (If yes, complete M-3) <input type="checkbox"/> Yes <input type="checkbox"/> No OCarCong (4070)	VSD Repair: <input type="checkbox"/> Yes-congenital <input type="checkbox"/> Yes-acquired <input type="checkbox"/> No OCarVSD (4130)
LV Aneurysm Repair: <input type="checkbox"/> Yes <input type="checkbox"/> No OCarLVA (4075)	Other Cardiac Procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No OCarOthr (4135)

M.1. Atrial Fibrillation Procedures	
<i>(If Other Cardiac Procedure, AFib = Yes ↓)</i>	
Lesion location: <input type="checkbox"/> Primarily epicardial <input type="checkbox"/> Primarily Intracardiac OCarAFibLesLoc (4191)	
Method of Lesion Creation: (Select all that apply.) Radiofrequency OCarAFibMethRad (4200) <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Bipolar <input type="checkbox"/> Yes <input type="checkbox"/> No OCarAFibMethRadBi (4205) Cut-and-sew OCarAFibMethCAS (4210) <input type="checkbox"/> Yes <input type="checkbox"/> No Cryo OCarAFibMethCryo (4215) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Lesions Documented: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) OCarLesDoc (4240)	



Epicardial Left Sided Lesions

Lesions: (check all that apply ↓)

- | | | | |
|-----------------------------|---|------------------------------|---|
| <input type="checkbox"/> 1 | Bilateral Pulmonary Vein Isolation
<i>AFibLes1 (4250)</i> | <input type="checkbox"/> 9 | Intercaval Line to Tricuspid Annulus (“T” lesion)
<i>AFibLes9 (4295)</i> |
| <input type="checkbox"/> 2 | Box Lesion Only
<i>AFibLes2 (4255)</i> | <input type="checkbox"/> 10 | Tricuspid Cryo Lesion, Medial
<i>AFibLes10 (4300)</i> |
| <input type="checkbox"/> 3a | Inferior Pulmonary Vein Connecting Lesion
<i>AFibLes3a (4260)</i> | <input type="checkbox"/> 11 | Intercaval Line (SVC and IVC)
<i>AFibLes11 (4305)</i> |
| <input type="checkbox"/> 3b | Superior Pulmonary Vein Connecting Lesion
<i>AFibLes3b (4265)</i> | <input type="checkbox"/> 12 | Tricuspid Annular Line to RAA
<i>AFibLes12 (4310)</i> |
| <input type="checkbox"/> 4 | Posterior Mitral Annular Line Lesion
<i>AFibLes4 (4270)</i> | <input type="checkbox"/> 13 | Tricuspid Cryo Lesion
<i>AFibLes13 (4315)</i> |
| <input type="checkbox"/> 5 | Pulmonary Vein Connecting Lesion to Anterior Mitral Annulus
<i>AFibLes5 (4275)</i> | <input type="checkbox"/> 14 | RAA Ligation/Removal/Obliteration
<i>AFibLes14 (4320)</i> |
| <input type="checkbox"/> 6 | Mitral Valve Annular Lesion
<i>AFibLes6 (4280)</i> | <input type="checkbox"/> 15a | RAA Lateral Wall (Short)
<i>AFibLes15a (4325)</i> |
| <input type="checkbox"/> 7 | LAA /Removal/Obliteration
<i>AFibLes7 (4285)</i> | <input type="checkbox"/> 15b | RAA Lateral Wall to “T” Lesion
<i>AFibLes15b (4330)</i> |
| <input type="checkbox"/> 8 | Pulmonary Vein to LAA Lesion
<i>AFibLes8 (4290)</i> | <input type="checkbox"/> 16 | Coronary Sinus Lesion
<i>AFitLesCSL (4336)</i> |

M.2. Aorta And Aortic Root Procedures				
Family history of disease of aorta: <input type="checkbox"/> Aneurysm <input type="checkbox"/> Dissection <input type="checkbox"/> Both Aneurysm and Dissection <input type="checkbox"/> Sudden Death <input type="checkbox"/> None <input type="checkbox"/> Unknown FamHistAorta (4500)				
Patient's genetic history: <input type="checkbox"/> Marfan <input type="checkbox"/> Ehlers-Danlos <input type="checkbox"/> Loeys-Dietz <input type="checkbox"/> Non-Specific familial thoracic aortic syndrome PatGenHist (4505) <input type="checkbox"/> Bicuspid AV <input type="checkbox"/> Turner syndrome <input type="checkbox"/> Other <input type="checkbox"/> None <input type="checkbox"/> Unknown				
Prior aortic intervention: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes ↓) PriorAorta (4510)				
Location	Previous repair location(s)	Repair Type	Repair failure (If Yes ↓)	Disease progression (If Yes ↓)
	Select all that apply	Select all that apply	Select all that apply	Select all that apply
Root	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorRepRoot (4520)	<input type="checkbox"/> Open <input type="checkbox"/> Endovascular <input type="checkbox"/> Hybrid PriorRepTyRoot (4521)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorFailRoot (4522)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorProgRoot (4523)
Ascending	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorRepAsc (4525)	<input type="checkbox"/> Open <input type="checkbox"/> Endovascular <input type="checkbox"/> Hybrid PriorRepTyAsc (4526)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorFailAsc (4527)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorProgAsc (4528)
Arch	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorRepArch (4530)	<input type="checkbox"/> Open <input type="checkbox"/> Endovascular <input type="checkbox"/> Hybrid PriorRepTyArch (4531)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorFailArch (4532)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorProgArch (4533)
Descending	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorRepDesc (4535)	<input type="checkbox"/> Open <input type="checkbox"/> Endovascular <input type="checkbox"/> Hybrid PriorRepTyDesc (4536)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorFailDesc (4537)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorProgDesc (4538)
Suprarenal abdominal	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorRepSupraAb (4540)	<input type="checkbox"/> Open <input type="checkbox"/> Endovascular <input type="checkbox"/> Hybrid PriorRepTySupraAb (4541)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorFailSupraAb (4542)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorProgSupraAb (4543)
Infrarenal abdominal	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorRepInfraAb (4545)	<input type="checkbox"/> Open <input type="checkbox"/> Endovascular <input type="checkbox"/> Hybrid PriorRepTyInfraAb (4546)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorFailInfraAb (4547)	<input type="checkbox"/> Yes <input type="checkbox"/> No PriorProgInfraAb (4548)
Endoleak: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes, select all ↓) Endoleak (4620)				
<input type="checkbox"/> Type I: leak at graft attachment site: <input type="checkbox"/> Yes <input type="checkbox"/> No EndoleakTypeI (4625) (If Yes →) Type I location: <input type="checkbox"/> Ia-proximal <input type="checkbox"/> Ib -distal <input type="checkbox"/> Ic- iliac occluder EndoleakTyLoc (4630)				
<input type="checkbox"/> Type II: aneurysm sac filling via branch vessel: <input type="checkbox"/> Yes <input type="checkbox"/> No EndoleakTypeII (4635) (If Yes →) Number of vessels: <input type="checkbox"/> IIa: single vessel <input type="checkbox"/> IIb: two vessels or more EndoleakVessNum (4640)				
<input type="checkbox"/> Type III: leak through defect in graft: <input type="checkbox"/> Yes <input type="checkbox"/> No EndoleakTypeIII (4645) (If Yes →) Graft defect type: <input type="checkbox"/> IIIa: junctional separation of modular components <input type="checkbox"/> IIIb: endograft fractures or holes EndoleakType (4650)				
<input type="checkbox"/> Type IV: leak through graft fabric – porosity: <input type="checkbox"/> Yes <input type="checkbox"/> No EndoleakTypeIV (4655)				
<input type="checkbox"/> Type V: endotension - expansion aneurysm sac without leak: <input type="checkbox"/> Yes <input type="checkbox"/> No EndoleakTypeV (4660)				
Infection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →) Aorta Infection Type: <input type="checkbox"/> Graft infection <input type="checkbox"/> Valvular endocarditis <input type="checkbox"/> Nonvalvular endocarditis Infection (4665) <input type="checkbox"/> Native aorta <input type="checkbox"/> Multiple infection types InfectType (4670)				
Trauma: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →) Location: Select all that apply Trauma (4675)				
	Root TraumaRoot (4680)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Descending TraumaDesc (4695)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Ascending TraumaAsc (4685)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Thoracoabdominal TraumaThorac (4700)	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Arch TraumaArch (4690)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Abdominal TraumaAbdom (4705)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Presentation: <input type="checkbox"/> Pain <input type="checkbox"/> CHF <input type="checkbox"/> Cardiac Arrest <input type="checkbox"/> Syncope <input type="checkbox"/> Stroke <input type="checkbox"/> Limb numbness <input type="checkbox"/> Paralysis <input type="checkbox"/> Fatigue <input type="checkbox"/> Infection Presentation (4710) <input type="checkbox"/> Weakness <input type="checkbox"/> Hoarseness (vocal cord dysfunction) <input type="checkbox"/> Asymptomatic				
Primary Indication: <input type="checkbox"/> Aneurysm <input type="checkbox"/> Dissection <input type="checkbox"/> Valvular Dysfunction <input type="checkbox"/> Obstruction <input type="checkbox"/> Intramural Hematoma PrimIndic (4715) <input type="checkbox"/> Infection <input type="checkbox"/> Stenosis <input type="checkbox"/> Coarctation				
(if Aneurysm →)	Etiology: AnEtiology (4720)	<input type="checkbox"/> Atherosclerosis <input type="checkbox"/> Infection <input type="checkbox"/> Inflammatory <input type="checkbox"/> Connective Tissue Disorder <input type="checkbox"/> Penetrating Ulcer <input type="checkbox"/> Pseudoaneurysm <input type="checkbox"/> Mycotic <input type="checkbox"/> Traumatic transection <input type="checkbox"/> Intercostal visceral patch <input type="checkbox"/> Anastomotic site <input type="checkbox"/> Unknown		
	Type: AnType (4725)	<input type="checkbox"/> Fusiform <input type="checkbox"/> Saccular <input type="checkbox"/> Unknown		
	Rupture: AnRupt (4730)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Contained rupture: <input type="checkbox"/> Yes <input type="checkbox"/> No AnRuptCon (4735)		
	Location: AnLoc (4740)	<input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11		
(if Dissection →)	Timing: DisTiming (4745)	<input type="checkbox"/> Hyperacute (<48 hrs) <input type="checkbox"/> Acute (48hrs-2weeks) <input type="checkbox"/> Subacute (>2weeks -90 days) <input type="checkbox"/> Chronic (>90 days) <input type="checkbox"/> Acute on Chronic <input type="checkbox"/> Unknown		
	Dissection onset date known <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) DisOnsetDtKnown (4746)	Date of onset: _/ _/ _-_-_- DisOnsetDt (4747)		
	Primary tear location: DisTearLoc (4750)	<input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11		

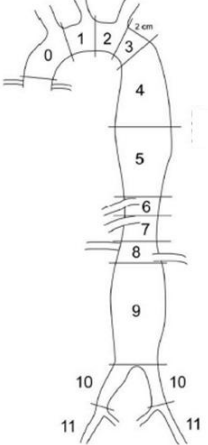
Secondary tear location: <input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11 DisSecLoc (4755)	
Retrograde extension: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes ↓) DisRetExt (4760)	
Retrograde Location: <input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 DisRetLoc (4765)	
Post TEVAR: <input type="checkbox"/> Yes <input type="checkbox"/> No DisPosTEVAR (4770)	
Distal extension: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes ↓) DistalExt (4775)	
Distal Extension Location: <input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11 DistalExtLoc (4780)	
Malperfusion: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes ↓ select all that apply) DisMal (4785)	
Coronary <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalCor (4790) Right Subclavian <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalRtSubclav (4791) Right Common Carotid <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalRtComCar (4792) Left Common Carotid <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalComL (4800) Left Subclavian <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalSubL (4805) Celiac <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalCel (4810)	Superior Mesenteric <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalSup (4815) Renal, left <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalRenL (4820) Renal, right <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalRenR (4825) Iliofemoral <input type="checkbox"/> Yes <input type="checkbox"/> No DisMallio (4830) Spinal <input type="checkbox"/> Yes <input type="checkbox"/> No DisMalSpin (4835)
Lower Extremity Motor Function: <input type="checkbox"/> No deficit <input type="checkbox"/> Weakness <input type="checkbox"/> Paralysis <input type="checkbox"/> Unknown DisLowMotFun (4836)	
Lower Extremity Sensory Deficit: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown DisLowSenDef (4837)	
Rupture: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) DisRupt (4840)	
Contained rupture: <input type="checkbox"/> Yes <input type="checkbox"/> No DisRuptCon (4845)	
Rupture Location: <input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11 DisRuptLoc (4850)	
Root	Aorto-annular ectasia: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown RootAAnnEctasia (4855)
	Asymmetric Root Dilatation: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →) Dilatation Location <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Non-coronary RootDilaAsym (4870) RootDilaAsym (4875)
	Sinus of Valsalva aneurysm: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →) SV Aneurysm Location: <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Non-coronary RootSinus (4880) RootSinusLoc (4881)
Arch	Arch Type : <input type="checkbox"/> Left <input type="checkbox"/> Right Aberrant Left Subclavian: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchType (4882) ArchAbLtSub (4885)
	Aberrant Right Subclavian : <input type="checkbox"/> Yes <input type="checkbox"/> No Bovine: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchAbRtSub (4884) ArchBovine (4887)
	Kommerell : <input type="checkbox"/> Yes <input type="checkbox"/> No Patent internal mammary artery bypass graft: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchKom (4886) ArchPatIMA (4889)
	Variant vertebral origin: <input type="checkbox"/> Yes <input type="checkbox"/> No
Ascending	Asymmetric Dilatation: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown AscAsymDil (4891)
	Proximal coronary bypass grafts: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown AscProxGr (4892)
3-D reconstruction aortic diameter measurements available: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓ indicate maximal diameter for each zone in mm) Diameter3DMeas (4895)	
Annulus	Zone 2 _____mm Zone 8 _____mm Diam3DAnnulus (4900) Diam3DZone2 (4930) Diam3DZone8 (4944)
Sinus segment	Zone 3 _____mm Zone 9 _____mm Diam3DSinus (4905) Diam3DZone3 (4935) Diam3DZone9 (4945)
Sinotubular junction	Zone 4 _____mm Zone 10 _____mm Diam3DSinotubular (4910) Diam3DZone4 (4940) Diam3DZone10 (4946)
Mid-ascending	Zone 5 _____mm Zone 11 _____mm Diam3DMidAsc (4915) Diam3DZone5 (4941) Diam3DZone11 (4947)

Distal Ascending _____mm Diam3DDistalAsc (4920)	Zone 6 _____mm Diam3DZone6 (4942)	Zone 7 _____mm Diam3DZone7 (4943)
Largest (pre-operative) diameter of treated segment(s)		
Annulus _____mm DiamLgstAnnulus (4948)	Zone 2 _____mm DiamLgstZone2 (4954)	Zone 8 _____mm DiamLgstZone8 (4960)
Sinus segment _____mm DiamLgstSinus (4949)	Zone 3 _____mm DiamLgstZone3 (4955)	Zone 9 _____mm DiamLgstZone9 (4961)
Sinotubular junction _____mm DiamLgstSinotubular (4950)	Zone 4 _____mm DiamLgstZone4 (4956)	Zone 10 _____mm DiamLgstZone10 (4962)
Mid-ascending _____mm DiamLgstMidAsc (4951)	Zone 5 _____mm DiamLgstZone5 (4957)	Zone 11 _____mm DiamLgstZone11 (4963)
Distal Ascending _____mm DiamLgstDistalAsc (4952)	Zone 6 _____mm DiamLgstZone6 (4958)	
Zone 1 _____mm DiamLgstZone1 (4953)	Zone 7 _____mm DiamLgstZone7 (4959)	
Intervention Planned Staged Hybrid: <input type="checkbox"/> Yes <input type="checkbox"/> No PlanStagHybrid (4970) Open Arch Procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) ArchProc (4975) Distal Technique: <input type="checkbox"/> Open <input type="checkbox"/> Clamped ArchDisTech (4980) Distal Site: <input type="checkbox"/> Ascending Aorta <input type="checkbox"/> Hemiarch <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 ArchDiscSite (4985) Distal Extention: <input type="checkbox"/> Elephant trunk <input type="checkbox"/> Frozen Elephant trunk <input type="checkbox"/> No ArchDisExt (4990) Arch Branch Reimplantation: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) ArchBranReimp (4995) Innominate: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchBranInnom (5000) Right Subclavian: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchBranRSub (5001) Right Common Carotid: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchBranRComm (5002) Left Common Carotid: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchBranLComm (5005) Left Subclavian: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchBranLSub (5010) Left Vertebral: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchBranLVert (5011) Other: <input type="checkbox"/> Yes <input type="checkbox"/> No ArchBranOth (5012)		
Open Descending Thoracic Aorta or Thoracoabdominal Procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) DescAortaProc (5015) Proximal Location: <input type="checkbox"/> Reverse Hemiarch <input type="checkbox"/> Zone 0 <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 DescAortaLoc (5020) Intercostal Reimplantation: <input type="checkbox"/> Yes <input type="checkbox"/> No AortaInterReimp (5030) Distal Location: <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11 AortaDisZone (5035) Visceral vessel intervention: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) AortaVisceral (5045) Celiac: <input type="checkbox"/> Reimplantation <input type="checkbox"/> Branch Graft <input type="checkbox"/> None AortaViscCel (5050) Superior mesenteric: <input type="checkbox"/> Reimplantation <input type="checkbox"/> Branch Graft <input type="checkbox"/> None AortaViscSup (5055) Right Renal: <input type="checkbox"/> Reimplantation <input type="checkbox"/> Branch Graft <input type="checkbox"/> None AortaViscRenR (5060) Left Renal: <input type="checkbox"/> Reimplantation <input type="checkbox"/> Branch Graft <input type="checkbox"/> None AortaViscRenL (5065)		
Endovascular Procedure(s) : <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) EndovasProc (5066) Access: <input type="checkbox"/> Femoral <input type="checkbox"/> Iliac <input type="checkbox"/> Abdominal Aorta <input type="checkbox"/> Lt. Subclavian <input type="checkbox"/> Rt. Subclavian <input type="checkbox"/> Ascending Aorta <input type="checkbox"/> LV Apex EndovasAccess (5067) Percutaneous Access: <input type="checkbox"/> Yes <input type="checkbox"/> No EndovasPercAcc (5068) Proximal landing zone: <input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending EndoProxZone (5070) <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11 Distal landing zone: <input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending EndoDistalZone (5080) <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11 TAVR (for combination procedures): <input type="checkbox"/> Yes <input type="checkbox"/> No EndovasTAVR (5090) Ascending TEVAR : <input type="checkbox"/> Dedicated IDE <input type="checkbox"/> Off Label Stent <input type="checkbox"/> No EndovasTEVAR (5095)		
Arch Vessel management		
Innominate: <input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated Innominate (5100)		

(If Extra-anatomic bypass→)	Aorta-Innominate <input type="checkbox"/> Yes <input type="checkbox"/> No InAortaInnom (5105)	Aorta-right carotid <input type="checkbox"/> Yes <input type="checkbox"/> No InAortaCarotid (5110)	Aorta- right subclavian <input type="checkbox"/> Yes <input type="checkbox"/> No InAortaSubclav (5115)
	Right Carotid- Right subclavian <input type="checkbox"/> Yes <input type="checkbox"/> No InCaroSubclav (5125)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No InOther (5135)	
Left Carotid: LeftCarotid (5140)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated		
(If Extra-anatomic bypass→)	Aorta- left carotid <input type="checkbox"/> Yes <input type="checkbox"/> No LTCaroAortaCaro (5150)	Innominate- left carotid <input type="checkbox"/> Yes <input type="checkbox"/> No LTCaroInnomCaro (5160)	
	Right carotid- Left carotid <input type="checkbox"/> Yes <input type="checkbox"/> No LTCaroCarotid (5170)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No LTCaroOther (5175)	
Left Subclavian: LeftSubclavian (5180)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated		
(If Extra-anatomic bypass→)	Aorta- left subclavian <input type="checkbox"/> Yes <input type="checkbox"/> No LTSubAortaSub (5195)	Left carotid- left subclavian <input type="checkbox"/> Yes <input type="checkbox"/> No LTSubCarotidSub (5205)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No LTSubOther (5213)
Other Arch Vessel(s) Extra-anatomic bypass: OthArchVes (5214)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓)		
	Innominate – carotid <input type="checkbox"/> Yes <input type="checkbox"/> No OthInnomCaro (5215)	Innominate- subclavian <input type="checkbox"/> Yes <input type="checkbox"/> No OthInnomSub (5216)	
	Subclavian-subclavian <input type="checkbox"/> Yes <input type="checkbox"/> No OthSubSub (5217)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No OthOther (5218)	
Visceral Vessel management			
Celiac: Celiac (5220)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated		
(If Extra-anatomic bypass→)	Aorta- celiac <input type="checkbox"/> Yes <input type="checkbox"/> No CeliacAortaCeli (5225)	Iliac-celiac <input type="checkbox"/> Yes <input type="checkbox"/> No CeliacIliacCeliac (5245)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No CeliacOther (5265)
Superior mesenteric: SupMesenteric (5270)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated		
(If Extra-anatomic bypass→)	Aorta- superior mesenteric <input type="checkbox"/> Yes <input type="checkbox"/> No SupMesAortaSuMe (5280)	Iliac- superior mesenteric <input type="checkbox"/> Yes <input type="checkbox"/> No SupMesIliacSupMe (5300)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No SupMesOther (5315)
Right renal: RightRenal (5320)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated		
(If Extra-anatomic bypass→)	Aorta- right renal <input type="checkbox"/> Yes <input type="checkbox"/> No RtRenAortaRtRe (5335)	Iliac- right renal <input type="checkbox"/> Yes <input type="checkbox"/> No RtRenIliacRtRen (5355)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No RtRenOther (5365)
Left renal: LeftRenal (5370)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated		
(If Extra-anatomic bypass→)	Aorta- left renal <input type="checkbox"/> Yes <input type="checkbox"/> No LtRenAortaLtRe (5375)	Iliac – left renal <input type="checkbox"/> Yes <input type="checkbox"/> No LtRenIliacLtRen (5380)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No LtRenOther (5385)
Right Iliac: RightIliac (5390)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Bifurcated Graft <input type="checkbox"/> Extra-anatomic Bypass		
(If Extra-anatomic bypass→)	Femoral- Femoral <input type="checkbox"/> Yes <input type="checkbox"/> No RtIliacFemFem (5391)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No RtIliacOther (5392)	
Left Iliac: LeftIliac (5393)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Bifurcated Graft <input type="checkbox"/> Extra-anatomic Bypass		
(If Extra-anatomic bypass→)	Femoral- Femoral <input type="checkbox"/> Yes <input type="checkbox"/> No LtIliacFemFem (5394)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No LtIliacOther (5395)	
Internal Iliac Preserved: IntIliacPres (5396)	<input type="checkbox"/> Right Iliac only <input type="checkbox"/> Left Iliac only <input type="checkbox"/> Both <input type="checkbox"/> No		
Other Visceral Vessel(s) Extra-anatomic Bypass: OthVisVes (5397)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓)		
	Aorta-other <input type="checkbox"/> Yes <input type="checkbox"/> No OthVisAortOth (5398)	Iliac-other <input type="checkbox"/> Yes <input type="checkbox"/> No OthVisIliacOth (5399)	Other <input type="checkbox"/> Yes <input type="checkbox"/> No OthVisOther (5400)
Dissection proximal entry tear covered: DisProxTearCov (5401)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Endoleak at end of procedure: EndoEndProc (5402)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) Type: <input type="checkbox"/> Ia <input type="checkbox"/> Ib <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> V EndoEndProcTy (5403)
Conversion to open: ConvToOpen (5404)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →)	Conversion reason: ConvToOpenRes (5405)	<input type="checkbox"/> Deployment failure <input type="checkbox"/> Endoleak <input type="checkbox"/> Rupture <input type="checkbox"/> Occlusion/loss of branch
Intraop Dissection Extension: IntDisExten (5406)	<input type="checkbox"/> None <input type="checkbox"/> Antegrade <input type="checkbox"/> Retrograde <input type="checkbox"/> Both		
Unintentional rupture of dissection septum: UnintRup (5407)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) UnintRupLoc (5408)	<input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending-distal ascending <input type="checkbox"/> Zone 1 <input type="checkbox"/> Zone 2 <input type="checkbox"/> Zone 3 <input type="checkbox"/> Zone 4 <input type="checkbox"/> Zone 5 <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9 <input type="checkbox"/> Zone 10 <input type="checkbox"/> Zone 11	
Spinal Drain Placement: SpinalDrain (5420)	<input type="checkbox"/> Pre- aortic procedure <input type="checkbox"/> Post- aortic procedure <input type="checkbox"/> None		

IntraOp Motor Evoked Potential: <input type="checkbox"/> Yes <input type="checkbox"/> No MotorEvoke (5425)	(If Yes →) Documented MEP abnormality <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown MotorEvokeAb (5426)	
IntraOp Somatosensory Evoked Potential: <input type="checkbox"/> Yes <input type="checkbox"/> No SomatEvoke (5430)	(If Yes →) Documented SEP abnormality <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown SomatEvokeAb (5431)	
IntraOp EEG: <input type="checkbox"/> Yes <input type="checkbox"/> No IntraOpEEG (5432)	(If Yes →) Documented EEG abnormality <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown IntraOpEEGAb (5433)	
IntraOp Intravascular Ultrasound(IVUS): <input type="checkbox"/> Yes <input type="checkbox"/> No IntraOpIVUS (5434)	IntraOp Transcutaneous Doppler: <input type="checkbox"/> Yes <input type="checkbox"/> No TransDoppler (5435)	
Intraoperative Angiogram: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) IntraOpAng (5436)	Volume of contrast: _____ ml IntraOpAngVol (5437)	Fluoroscopy time: _____ min IntraOpAngFITm (5438)

Devices
Device(s) Inserted: Yes No (If Yes, list proximal to distal using device key ↓)
ADevIns (5440)

Location :		X. No additional devices inserted (only for locations 2 – 15) A. Below sinotubular junction B. Sinotubular junction to mid ascending C. Mid ascending to distal ascending D. Zone 1 (between innominate and left carotid) E. Zone 2 (between left carotid and left subclavian) F. Zone 3 (first 2 cm. distal to left subclavian) G. Zone 4 (end of zone 3 to mid descending aorta ~ T6) H. Zone 5 (mid descending aorta to celiac) I. Zone 6 (celiac to superior mesenteric) J. Zone 7 (superior mesenteric to renals) K. Zone 8 (renal to infra-renal abdominal aorta) L. Zone 9 (infra-renal abdominal aorta) M. Zone 10 (common iliac) N. Zone 11 (external iliacs)
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Delivery Method: 1=Open 2= Endovascular

Outcome: 1= Maldeployed 2= Deployed and removed 3= Successfully deployed

Model Number: Enter device model number

UDI: Enter unique device identifier (not serial number)

Location (Letter)	Delivery Method	Outcome	Model #	UDI
ADevLoc01 (5450)	ADevDelMeth01 (5455)	ADevOut01 (5460)	ADevModel01 (5465)	ADevUDI01 (5470)
ADevLoc02 (5475)	ADevDelMeth02 (5480)	ADevOut02 (5485)	ADevModel02 (5490)	ADevUDI02 (5495)
ADevLoc03 (5500)	ADevDelMeth03 (5505)	ADevOut03 (5510)	ADevModel03 (5515)	ADevUDI03 (5520)
ADevLoc04 (5525)	ADevDelMeth04 (5530)	ADevOut04 (5535)	ADevModel04 (5540)	ADevUDI04 (5545)
ADevLoc05 (5550)	ADevDelMeth05 (5555)	ADevOut05 (5560)	ADevModel05 (5565)	ADevUDI05 (5570)
ADevLoc06 (5575)	ADevDelMeth06 (5580)	ADevOut06 (5585)	ADevModel06 (5590)	ADevUDI06 (5595)
ADevLoc07 (5600)	ADevDelMeth07 (5605)	ADevOut07 (5610)	ADevModel07 (5615)	ADevUDI07 (5620)
ADevLoc08 (5625)	ADevDelMeth08 (5630)	ADevOut08 (5635)	ADevModel08 (5640)	ADevUDI08 (5645)
ADevLoc09 (5650)	ADevDelMeth09 (5655)	ADevOut09 (5660)	ADevModel09 (5665)	ADevUDI09 (5670)
ADevLoc10 (5675)	ADevDelMeth10 (5680)	ADevOut10 (5685)	ADevModel10 (5690)	ADevUDI10 (5695)
ADevLoc11 (5700)	ADevDelMeth11 (5705)	ADevOut11 (5710)	ADevModel11 (5715)	ADevUDI11 (5720)
ADevLoc12 (5725)	ADevDelMeth12 (5730)	ADevOut12 (5735)	ADevModel12 (5740)	ADevUDI12 (5745)
ADevLoc13 (5750)	ADevDelMeth13 (5755)	ADevOut13 (5760)	ADevModel13 (5765)	ADevUDI13 (5770)
ADevLoc14 (5775)	ADevDelMeth14 (5780)	ADevOut14 (5785)	ADevModel14 (5790)	ADevUDI14 (5795)
ADevLoc15 (5800)	ADevDelMeth15 (5805)	ADevOut15 (5810)	ADevModel15 (5815)	ADevUDI15 (5820)

M.3. Congenital Defect Repair (other than ASD, VSD or Bicuspid valve)

Congenital Diagnoses: Select up to three most significant diagnoses: (refer to “Congenital Diagnoses/Procedures List” document)
Diagnosis 1: _____ **OCarCongDiag1 (6500)** (If not “No additional congenital diagnoses” →) Diagnosis 2: _____ **OCarCongDiag2 (6505)** (If not “No additional congenital diagnoses” →) Diagnosis 3: _____ **OCarCongDiag3 (6510)**

Congenital Procedures: Select up to three most significant: (refer to “Congenital Diagnoses/Procedures List” document)
Procedure 1: _____ **OCarCongProc1 (6515)** (If not “No additional congenital procedures” →) Procedure 2: _____ **OCarCongProc1 (6515)** (If not “No additional congenital procedures” →) Procedure 3: _____ **OCarCongProc3 (6525)**

N. Other Non-Cardiac Procedures (If Other Non-Cardiac Procedure = Yes ↓)	
Carotid Endarterectomy: <input type="checkbox"/> Yes, planned <input type="checkbox"/> Yes, unplanned due to surgical complication ONCCarEn (6530)	<input type="checkbox"/> Yes, unplanned due to unsuspected disease or anatomy <input type="checkbox"/> No
Other Vascular: <input type="checkbox"/> Yes, planned <input type="checkbox"/> Yes, unplanned due to surgical complication ONCOVasc (6535)	<input type="checkbox"/> Yes, unplanned due to unsuspected disease or anatomy <input type="checkbox"/> No
Other Thoracic: <input type="checkbox"/> Yes, planned <input type="checkbox"/> Yes, unplanned due to surgical complication ONCOThor (6540)	<input type="checkbox"/> Yes, unplanned due to unsuspected disease or anatomy <input type="checkbox"/> No
Other: <input type="checkbox"/> Yes, planned <input type="checkbox"/> Yes, unplanned due to surgical complication ONCOther (6545)	<input type="checkbox"/> Yes, unplanned due to unsuspected disease or anatomy <input type="checkbox"/> No

O. Post-Operative	
Peak Glucose within 18-24 hours of anesthesia end time: _____ PostOpPeakGlu (6550)	
Postoperative Creatinine Level: _____ PostCreat (6555)	Discharge Hemoglobin: _____ PostopHemoglobin (6556)
Discharge Hematocrit: _____ PostopHct (6557)	
Blood Products Used Postoperatively: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) BldProd (6560)	
Red Blood Cell Units: _____ BdRBCU (6565)	Fresh Frozen Plasma Units: _____ BdFFPU (6570)
Cryoprecipitate Units: _____ BdCryoU (6575)	Platelet Units: _____ BdPlatU (6580)
Extubated in OR: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA ExtubOR (6585)	
Re-intubated /or intubated Post Op During Hospital Stay: <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes →)	Additional Hours Ventilated: _____ VentHrsA (6595)
Total post-operative ventilation hours _____ (System Calculation) VentHrsTot (6600)	
ICU Visit: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Initial ICU Hours: _____ ICUVisit (6605) ICUInHrs (6610)	
Readmission to ICU: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Additional ICU Hours: _____ ICUReadm (6615) ICUAdHrs (6620)	
Post Op Echo Performed to evaluate valve(s): <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) POpTTEch (6625)	
Level aortic insufficiency found: POpTTAR (6630) <input type="checkbox"/> None <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented	
Aortic Paravalvular leak: POpAortParaLk (6631) <input type="checkbox"/> None <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented	
Level mitral insufficiency found: POpTTMR (6635) <input type="checkbox"/> None <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented	
Mitral Paravalvular leak: POpMitParaLk (6636) <input type="checkbox"/> None <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented	
Level tricuspid insufficiency found: POpTTTR (6640) <input type="checkbox"/> None <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented	
Level pulmonic insufficiency found: POpTTPu (6645) <input type="checkbox"/> None <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented	
Post Op Ejection Fraction: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →)	Post Op Ejection Fraction: _____ (%) POpEF (6655)
Cardiac Enzymes (biomarkers) Drawn: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) POpEnzDrawn (6660)	Peak CKMB: _____ POpPkCKMB (6665)
	Peak Troponin I _____ POpPkTrI (6670)
	Peak Troponin T _____ POpPkTrT (6675)
12-Lead EKG Findings: POpEKG (6680) <input type="checkbox"/> Not performed <input type="checkbox"/> No ischemic changes <input type="checkbox"/> New ST changes <input type="checkbox"/> New Pathological Q-wave or LBBB <input type="checkbox"/> New RBBB <input type="checkbox"/> New AV Conduction Block <input type="checkbox"/> New STEMI <input type="checkbox"/> Other <input type="checkbox"/> NA (no pre-op EKG for comparison, transplant)	

P. Postoperative Events	
Surgical Site Infection within 30 days of operation: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) SurSInf (6690)	
Sternal Superficial Wound Infection: <input type="checkbox"/> Yes, within 30 days of procedure <input type="checkbox"/> Yes, >30 days after procedure but during hosp. for surgery <input type="checkbox"/> No CSternalSuplInf (6695)	
Deep Sternal Infection/ Mediastinitis: DeepSternInf (6700) <input type="checkbox"/> Yes, within 30 days of procedure <input type="checkbox"/> Yes, >30 days after procedure but during hosp. for surgery <input type="checkbox"/> No (If either Yes value →) Diagnosis Date: ___/___/___ (mm/dd/yyyy) DeepSternInfDt (6705)	
Thoracotomy: <input type="checkbox"/> Yes, within 30 days of procedure <input type="checkbox"/> Yes, >30 days after procedure but during hosp. for surgery <input type="checkbox"/> No CThor (6710)	

Conduit Harvest : Yes, within 30 days of procedure Yes, >30 days after procedure but during hosp. for surgery No

ConduitHarv (6715)

Cannulation Site: Yes, within 30 days of procedure Yes, >30 days after procedure but during hosp. for surgery No

CanSite (6720)

Wound Intervention/Procedure: Yes No (If Yes ↓)

WoundInter (6725)

Wound Intervention – Open with Packing/Irrigation: Yes, primary incision Yes, secondary incision Both No

WoundIntOpen (6730)

Wound Intervention – Wound Vac: Yes, primary incision Yes, secondary incision Both No

WoundIntVac (6735)

Secondary Procedure Muscle Flap: Yes, primary incision Yes, secondary incision Both No

WoundIntMuscle (6740)

Secondary Procedure Omental Flap: Yes No

WoundIntOmental (6745)

Other In Hospital Postoperative Event Occurred: Yes No (If Yes ↓)

Complics (6750)

Operative

ReOp for Bleeding /Tamponade: Yes No (If Yes →) Bleed Timing: Acute Late

COpReBld (6755)

COpReBldTim (6760)

ReOp for Valvular Dysfunction: Yes, surgical Yes, transcatheter No

COpReVlv (6765)

Reintervention for Myocardial Ischemia: Yes No

CReintMI (6771)

(If Yes →) Vessel: Native coronary Graft Both

CReintMIVes (6772)

Intervention Type: Surgery PCI Both

CReintMIIntTy (6773)

Aortic Reintervention: Yes No (if yes→) Type: Open Endovascular

CAortReint (6774)

CAortReintTy (6775)

ReOp for Other Cardiac Reasons: Yes No

COpReOth (6778)

Returned to the OR for Other Non-Cardiac Reasons: Yes No

COpReNon (6780)

Open chest with planned delayed sternal closure: Yes No

COpPIndDelay (6785)

Sternotomy Issue: Yes No (If Yes →) Sternal instability/dehiscence (sterile): Yes No

CSternal (6790)

CSternalDehis (6795)

Infection

Sepsis: Yes No (If Yes →) Positive Blood Cultures: Yes No

CSepsis (6800)

CSepsisPBC (6805)

Neurologic, Central

Postoperative Stroke: Yes, hemorrhagic Yes, ischemic Yes, undetermined type No

CNStrokP (6810)

Transient Ischemic Attack (TIA): Yes No

CNStrokTTIA (6815)

Encephalopathy: None Anoxic Drug Metabolic Mixed Unknown

CNEnceph (6821)

Coma/unresponsive state (not stroke): Yes No

CNComa (6822)

Neurologic, Peripheral

Lower Extremity Paralysis: Yes No (If Yes →) Paralysis Type: Transient Permanent

CNParal (6825)

CNParalTy (6826)

Paresis: Yes No (If Yes →) Paresis Type: Transient Permanent

CNParesis (6829)

CNParesisTy (6830)

Phrenic Nerve Injury: Yes No

PhrenNrvInj (6832)

Recurrent Laryngeal Nerve Injury: Yes No

ReclLarynNrvInj (6833)

Pulmonary

Prolonged Ventilation: Yes No (OR exit time until initial extubation, plus any additional reintubation hours)

CPVntLng (6835)

Pneumonia: Yes No

CPPneum (6840)

Venous Thromboembolism – VTE: Yes No (If Yes ↓)

CVTE (6845)

Pulmonary Thromboembolism: Yes No

PulmEmb (6850)

Deep Venous Thrombosis: Yes No

DVT (6855)

Pleural Effusion Requiring Drainage: Yes No

CPIEff (6860)

Pneumothorax Requiring Intervention: Yes No

PostOpPneumo (6865)

Renal

Renal Failure: <input type="checkbox"/> Yes <input type="checkbox"/> No CRenFail (6870)	Dialysis (Newly Required): <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Required after Hospital Discharge: <input type="checkbox"/> Yes <input type="checkbox"/> No CRenDial (6875)	DialDur (6880) Duration: <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent <input type="checkbox"/> Unknown DialStat (6881)
Ultra-Filtration Required: <input type="checkbox"/> Yes <input type="checkbox"/> No CUltraFil (6885)		
Vascular		
Iliac/Femoral Dissection: <input type="checkbox"/> Yes <input type="checkbox"/> No CVallFem (6890)		
Acute Limb Ischemia: <input type="checkbox"/> Yes <input type="checkbox"/> No CValblsc (6891)		
Mechanical assist device related complication : <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) CMAD (6892)		
Cannula/Insertion site issue <input type="checkbox"/> Yes <input type="checkbox"/> No CMADCanIns (6893)		
Hemorrhagic: <input type="checkbox"/> Yes <input type="checkbox"/> No CMADHem (6894)		
Thrombotic/Embolic: <input type="checkbox"/> Yes <input type="checkbox"/> No CMADThromEm (6895)		
Hemolytic: <input type="checkbox"/> Yes <input type="checkbox"/> No CMADHemolytic (6896)		
Infection: <input type="checkbox"/> Yes <input type="checkbox"/> No CMADInf (6897)		
Other mechanical assist device related complication: <input type="checkbox"/> Yes <input type="checkbox"/> No CMADOther (6898)		
Other		
Rhythm Disturbance Requiring Permanent Device: <input type="checkbox"/> Pacemaker <input type="checkbox"/> ICD <input type="checkbox"/> Pacemaker/ICD <input type="checkbox"/> Other <input type="checkbox"/> None CRhythmDis (6900)		
Cardiac Arrest: <input type="checkbox"/> Yes <input type="checkbox"/> No CotArrst (6905)		
Post Op Aortic Endoleak: <input type="checkbox"/> Yes <input type="checkbox"/> No (if yes→) Type: <input type="checkbox"/> Ia <input type="checkbox"/> Ib <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> V CotAortEndo (6906) CotAortEndoTy (6907)		
Aortic Rupture: <input type="checkbox"/> Yes <input type="checkbox"/> No CotAortRupt (6908)		
Aortic Dissection: <input type="checkbox"/> Yes <input type="checkbox"/> No (if yes→) Type: <input type="checkbox"/> Antegrade <input type="checkbox"/> Retrograde <input type="checkbox"/> Both CVaAoDis (6909) CVaAoDisTy (6910)		
Aortic Side Branch malperfusion: <input type="checkbox"/> Yes <input type="checkbox"/> No CotAortSide (6911)		
Aortic stent graft induced entry tear: <input type="checkbox"/> Yes <input type="checkbox"/> No CotAortTear (6912)		
Anticoagulant Event: <input type="checkbox"/> Yes <input type="checkbox"/> No CotCoag (6914)		
Pericardiocentesis: <input type="checkbox"/> Yes <input type="checkbox"/> No CotTamp (6915)		
Gastro-Intestinal Event: <input type="checkbox"/> Yes <input type="checkbox"/> No CotGI (6920)		
Liver Dysfunction/ Failure: <input type="checkbox"/> Yes <input type="checkbox"/> No CotLiver (6921)		
Multi-System Failure: <input type="checkbox"/> Yes <input type="checkbox"/> No CotMSF (6925)		
Atrial Fibrillation: <input type="checkbox"/> Yes <input type="checkbox"/> No CotAFib (6930)		
Other: <input type="checkbox"/> Yes <input type="checkbox"/> No CotOther (6950)		

Q. Discharge / Mortality

Date of Last Follow-up: ___/___/____ (mm/dd/yyyy) LFUDate (7000)		
Status at 30 days After Surgery: <input type="checkbox"/> Alive <input type="checkbox"/> Dead <input type="checkbox"/> Unknown Mt30Stat (7001)		
Primary method used to verify 30-day status:	<input type="checkbox"/> Phone call to patient or family	<input type="checkbox"/> Office visit >= 30 days after procedure
Mt30StatMeth (7002)	<input type="checkbox"/> Letter from medical provider	<input type="checkbox"/> Social Security Death Master File /NDI
	<input type="checkbox"/> Medical record (evidence of life or death)	<input type="checkbox"/> Other
Discharge/Mortality status: <input type="checkbox"/> In hospital, alive <input type="checkbox"/> Discharged alive, last known status = alive DischMortStat (7005) <input type="checkbox"/> Died in hospital <input type="checkbox"/> Discharged alive, died after discharge		
If Discharge/Mortality Status = "Discharged alive, last know status=alive" or "Discharged alive, died after discharge" ↓) Discharge Date ___/___/____ (mm/dd/yyyy) DischDt (7008)		

Discharge Location: DisLoctn (7009)	<input type="checkbox"/> Home <input type="checkbox"/> Extended Care/Transitional Care Unit/Rehab <input type="checkbox"/> Other Acute Care Hospital <input type="checkbox"/> Nursing Home <input type="checkbox"/> Hospice <input type="checkbox"/> Left AMA <input type="checkbox"/> Other
Cardiac Rehabilitation Referral: CardRef (7010)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable
Smoking Cessation Counseling: SmokCoun (7011)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable
Medications Prescribed at Discharge	
Antiplatelet	Aspirin DCASA (7060) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
	ADP Inhibitor DCADP (7070) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
	Other Antiplatelet DCOthAntiplat (7075) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
Anticoagulant	Thrombin Inhibitors DCDirThromIn (7080) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
	Warfarin (Coumadin) DCCoum (7085) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
	Factor Xa inhibitors DCFactorXa (7090) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
	Novel Oral Anticoagulant DCNovOrAnti (7091) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
	Other Anticoagulant DCOthAnticoag (7095) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
ACE or ARB DCACE (7100)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated <input type="checkbox"/> Not Indicated (no CHF or EF > 40%)
Amiodarone DCAmiodarone (7103)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
Beta Blocker DCBeta (7105)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
Lipid Lowering - Statin DCLipLowStat (7115)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
Lipid Lowering - Other DCLipLowNonStat (7120)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Contraindicated
(If Discharge/Mortality Status = "Died in hospital" or "Discharged alive, died after discharge" ↓)	
Mortality - Date ___/___/___ (mm/dd/yyyy) MtDate (7121)	
Primary Cause of Death (select only one) MtCause (7122)	
<input type="checkbox"/> Cardiac <input type="checkbox"/> Neurologic <input type="checkbox"/> Renal <input type="checkbox"/> Vascular <input type="checkbox"/> Infection <input type="checkbox"/> Pulmonary <input type="checkbox"/> Unknown <input type="checkbox"/> Other	
(If Discharge/Mortality Status = "Died in hospital" ↓)	
In-Hospital death location: <input type="checkbox"/> OR During Initial Surgery <input type="checkbox"/> OR during reoperation <input type="checkbox"/> In Hospital (Other than OR) InHospDthLoc (7123)	
(If Discharge/Mortality Status = "Discharged alive, died after discharge")	
Operative Death: <input type="checkbox"/> Yes <input type="checkbox"/> No MtOpD (7124)	
Post Discharge death location: PostDisDthLoc (7125)	
<input type="checkbox"/> Home <input type="checkbox"/> Extended Care Facility <input type="checkbox"/> Hospice <input type="checkbox"/> Acute Rehabilitation <input type="checkbox"/> Hospital during readmission <input type="checkbox"/> Other <input type="checkbox"/> Unknown	

R. Readmission

(If Discharge/Mortality Status = "Discharged alive, last know status=alive" or "Discharged alive, died after discharge" ↓)

Readmit : Yes No Unknown (If Yes ↓)

Readmit (7140)

Readmit Date: ___/___/___ (mm/dd/yyyy)

ReadmitDt (7145)

Readmit Primary Reason:

ReadmRsn (7160)

- | | |
|---|--|
| <input type="checkbox"/> Angina | <input type="checkbox"/> Pericardial Effusion and/or Tamponade |
| <input type="checkbox"/> Anticoagulation Complication - Pharmacological | <input type="checkbox"/> Pericarditis/Post Cardiotomy Syndrome |
| <input type="checkbox"/> Anticoagulation Complication - Valvular | <input type="checkbox"/> Pleural effusion requiring intervention |
| <input type="checkbox"/> Aortic Complication | <input type="checkbox"/> Pneumonia |
| <input type="checkbox"/> Arrhythmia or Heart Block | <input type="checkbox"/> Renal Failure |
| <input type="checkbox"/> Blood Pressure (hyper or hypotension) | <input type="checkbox"/> Renal Insufficiency |
| <input type="checkbox"/> Chest pain, noncardiac | <input type="checkbox"/> Respiratory complication, Other |
| <input type="checkbox"/> Congestive Heart Failure | <input type="checkbox"/> Sepsis |
| <input type="checkbox"/> Coronary Artery/Graft Dysfunction | <input type="checkbox"/> Stroke |
| <input type="checkbox"/> Depression/psychiatric issue | <input type="checkbox"/> TIA |
| <input type="checkbox"/> DVT | <input type="checkbox"/> Transfusion |
| <input type="checkbox"/> Electrolyte imbalance | <input type="checkbox"/> Transplant Rejection |
| <input type="checkbox"/> Endocarditis | <input type="checkbox"/> VAD Complication |
| <input type="checkbox"/> Failure to thrive | <input type="checkbox"/> Valve Dysfunction |

- GI issue
- Infection, Conduit Harvest Site
- Infection, Deep Sternum / Mediastinitis
- Mental status changes
- Myocardial Infarction
- PE

- Vascular Complication, acute
- Wound , other (drainage, cellulitis)
- Other – Related Readmission
- Other – Nonrelated Readmission
- Other – Planned Readmission
- Unknown

Readmit Primary Procedure:

ReadmPro (7165)

- No Procedure Performed
- Cath lab for Valve Intervention
- Cath lab for Coronary Intervention (PCI)
- Dialysis
- OR for Bleeding
- OR for Coronary Artery Intervention
- OR for Sternal Debridement / Muscle Flap
- OR for Valve Intervention

- OR for Vascular Procedure
- OR for Aorta Intervention
- Pacemaker Insertion / AICD
- Pericardiotomy / Pericardiocentesis
- Planned noncardiac procedure
- Thoracentesis/ Chest tube insertion
- Wound vac
- Other Procedure
- Unknown

(if OR for Aorta intervention→)

Type: Open Endovascular

ReadmAortIntTy (7166)

Indication: Rupture Endoleak Infection Dissection Expansion Loss of side branch patency Other

ReadmAortIntInd (7167)

Adult Cardiac Anesthesiology

(for sites participating in the optional anesthesiology component)

Primary Anesthesiologist Name: PrimAnesName (7310)		Primary Anesthesiologist National Provider Number: PrimAnesNPI (7315)	
Anesthesiology Care Team Model: AnesCareTeamMod (7320)			
<input type="checkbox"/> Anesthesiologist working alone <input type="checkbox"/> Attending anesthesiologist teaching/medically directing fellow <input type="checkbox"/> Attending anesthesiologist teaching/medically directing house staff <input type="checkbox"/> Attending anesthesiologist medically directing CRNA (1:4 ratio or less) <input type="checkbox"/> Attending anesthesiologist medically directing CRNA (1:5 ratio or greater) <input type="checkbox"/> Surgeon medically directing CRNA <input type="checkbox"/> CRNA practicing independently			
Pain Score Baseline: PainScorePre (7325)			
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> Not Recorded			
Algorithm to Guide Transfusion: TransfAlg (7330)		Cell Saver Volume: CellSavVol (7335)	
<input type="checkbox"/> Yes, SCA/STS algorithm used <input type="checkbox"/> Yes, other algorithm used <input type="checkbox"/> No Algorithm used		_____	
Heparin Total Dose: TotHep (7340)	(If TotHep > 0 →) Heparin Management: HepMgmt (7345)		
_____	<input type="checkbox"/> Heparin titration based on activated clotting time (ACT) <input type="checkbox"/> Heparin titration based on heparin concentration (e.g. Hepcon system) <input type="checkbox"/> Other method		
Protamine Total Dose: TotProt (7350)	Antithrombin III Total Dose: AntithromDose (7351)	Viscoelastic Testing Used Intraop: <input type="checkbox"/> Yes <input type="checkbox"/> No IntraViscoTest (7360)	
_____	_____	_____	
Volatile Agent Used: <input type="checkbox"/> Yes <input type="checkbox"/> No VolAgentUsed (7365)			
(If Yes →) Volatile Agent(s) used:			
Isoflurane VolAgentIso (7366)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Desflurane VolAgentDes (7368)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Sevoflurane VolAgentSevo (7367)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Other VolAgentOth (7369)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Volatile Agent(s) timing:			
Pre CPB VolAgentTimPre (7370)	<input type="checkbox"/> Yes <input type="checkbox"/> No	During CPB VolAgentTimDur (7375)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Post CPB VolAgentTimPost (7380)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Maintenance (if no CPB) VolAgentTimMaint (7385)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Intraop Infusion Dexmedetomidine: DexIntra (7390)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Intraop Infusion Propofol: PropIntra (7395)	<input type="checkbox"/> Yes <input type="checkbox"/> No
_____	_____	Intraop Mgs Midazolam: MidazIntra (7400)	_____
_____	_____	_____	Intraop Insulin Total Dose: TotInsulintra (7405)
_____	_____	_____	_____
Pre Induction Systolic BP: PreAnesthBPSys (7410)		Pre Induction Diastolic BP: PreAnesthBPDia (7415)	
_____		_____	
Pre Induction Mean BP: PreAnesthBPMean (7420)		_____	
_____		_____	
Pre Induction Heart Rate: PreAnesthHR (7425)		Pulmonary Artery Catheter Used: <input type="checkbox"/> Yes <input type="checkbox"/> No PACIntra (7430)	
_____		_____	
Core Temperature Source: CoreTempSrc (7435)		Core Temp Max: CoreTempMax (7440)	
<input type="checkbox"/> Esophageal <input type="checkbox"/> Nasopharyngeal <input type="checkbox"/> Tympanic <input type="checkbox"/> Bladder <input type="checkbox"/> PA Catheter Thermistor <input type="checkbox"/> Rectal		_____	
_____		_____	
Intra Op Nitric Oxide: NitricOxIntraop (7445)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Anesth. Total Crystalloid: TotCrystAnesth (7450)	Anesth. Synthetic Colloid TotColloidAnesth (7455)
_____	_____	_____	_____
Anesthesiology Total Albumin: TotAlbumAnesth (7460)		Intraop Glucose Trough: GlucTroughIntraop (7470)	
_____		_____	
Intraop Vasodilators Used: <input type="checkbox"/> Yes <input type="checkbox"/> No VasodilIntraop (7475)			
Intraoperative Processed EEG (BIS): <input type="checkbox"/> Yes <input type="checkbox"/> No IntraProcEEG (7476)			

Intraop Transesophageal Echo (TEE): <input type="checkbox"/> Yes <input type="checkbox"/> No			
IntraOpPreTEE (7480)			
(If Pre Proc TEE is Yes→)	Pre-procedure LVEF Measured: PreLVEFMeas (7485)	<input type="checkbox"/> Yes <input type="checkbox"/> No (if Yes→)	LVEF: _____ PreLVEF (7490)
	Pre-procedure RV Function: PreRVFx (7495)	<input type="checkbox"/> Normal <input type="checkbox"/> Mild Dysfunction	<input type="checkbox"/> Moderate Dysfunction <input type="checkbox"/> Severe Dysfunction <input type="checkbox"/> Not Assessed
	Mitral Regurgitation: PreMR (7500)	<input type="checkbox"/> None <input type="checkbox"/> Trace/trivial	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not assessed
	Mitral Stenosis: PreMS (7505)	<input type="checkbox"/> None <input type="checkbox"/> Mild	<input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Assessed
	Aortic Regurgitation: PreAR (7510)	<input type="checkbox"/> None <input type="checkbox"/> Trace/trivial	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not assessed
	Aortic Stenosis: PreAS (7515)	<input type="checkbox"/> None <input type="checkbox"/> Mild	<input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Assessed
	Aortic Valve Area Assessed: PreAVAAssessed (7520)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→)	Aortic Valve Area: _____ PreAVA (7525)
Tricuspid Regurgitation: PreTR (7530)	<input type="checkbox"/> None <input type="checkbox"/> Trace/trivial	<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not assessed	
Patent Foramen Ovale: PrePFO (7535)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed		
Ascending Aorta Assessed AscAoAssessed (7540)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
(If Yes→)	Maximal Ascending Aorta Diameter: MxAscAo (7545)	_____	
	Maximal Ascending Aorta Atheroma Thickness: MxAscAoThick (7550)	_____	
	Ascending Aorta Atheroma Mobility: AsAthMo (7555)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Aortic Arch Visualized: AoArcVis (7560)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
(If Yes→)	Maximal Aortic Arch Atheroma Thickness: MxArcAth (7565)	_____	
	Aortic Arch Atheroma Mobility: ArcAthMo (7570)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Cardiopulmonary Bypass Used: <input type="checkbox"/> Yes <input type="checkbox"/> No			
CPBUsed (7575)			
(If CPB Use is Yes→)	Retrograde Autologous Priming of CPB Circuit: RetrAutolPrim (7580)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Total Crystalloid Administered by Perfusion Team: TotCrystPerf (7585)	_____	
	Total Synthetic Colloid Administered by Perfusion Team: TotColloidPerf (7590)	_____	
	Total Albumin Administered by Perfusion Team: TotAlbumPerf (7595)	_____	
	Hemofiltration Volume Removed by Perfusion Team: HemofilPerf (7600)	_____	
	Inotropes used to wean from CPB: <input type="checkbox"/> Yes <input type="checkbox"/> No InotropWeanCPB (7605)		
	Vasopressors used to wean from CPB: <input type="checkbox"/> Yes <input type="checkbox"/> No VasopWeanCPB (7610)		
Post-Procedure Use Of Intraoperative TEE: <input type="checkbox"/> Yes <input type="checkbox"/> No			
IntraOpPostTEE (7615)			

(If Post Proc TEE is Yes→)	Systolic Anterior Motion of Mitral Valve: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed PostSAM (7620)
	Return to CPB for Echo Related Diagnosis: <input type="checkbox"/> Yes <input type="checkbox"/> No RetCPBEch (7625)
	Post-Procedure LVEF Measured: <input type="checkbox"/> Yes <input type="checkbox"/> No PostLVEFMeas (7630) (If Yes→) Post-Procedure LVEF: _____ PostLVEF (7635)
	Post-Procedure RV Function: <input type="checkbox"/> Normal <input type="checkbox"/> Moderate Dysfunction <input type="checkbox"/> Not Assessed PostRVFx (7640) <input type="checkbox"/> Mild Dysfunction <input type="checkbox"/> Severe Dysfunction
Intraoperative cardiac arrest related to anesthesia care: <input type="checkbox"/> Yes <input type="checkbox"/> No IntraCardArr (7641)	
Patient Died in the OR: <input type="checkbox"/> Yes <input type="checkbox"/> No ORDeath (7645)	
(If OR Death is No→)	Core Temp Measured upon Entry to ICU/PACU: <input type="checkbox"/> Yes <input type="checkbox"/> No PostTempMeas (7650) (If Yes→) Post Op Core Temp: _____ PostCoreTemp (7655)
	Post-Op INR Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No PostINRMeas (7660) (If Yes→) INR: _____ PostINR (7665)
	WBC Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No PostWBCMeas (7670) (If Yes→) WBC : _____ PostWBC (7675)
	Platelets Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No PostPltMeas (7680) (If Yes→) Platelet Count: _____ PostPlt (7685)
	Hematocrit Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No PostHCTMeas (7690) (If Yes→) Hematocrit: _____ PostHCT (7695)
	Fibrinogen Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No PostFibrinMeas (7696) (If Yes→) Fibrinogen _____ PostFibrin (7697)
	Lactate Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No PostLactMeas (7700) (If Yes→) Lactate: _____ PostLact (7705)
	Post Op Dexmedetomidine: <input type="checkbox"/> Yes <input type="checkbox"/> No DexPost (7710)
	Post Op Propofol: <input type="checkbox"/> Yes <input type="checkbox"/> No PropPost (7715)
	Post Op Delirium: <input type="checkbox"/> Yes <input type="checkbox"/> No PostopDel (7720)
	Post Op Heparin Induced Thrombocytopenia: <input type="checkbox"/> Yes <input type="checkbox"/> No PostHITAnti (7725)
	Pain Score POD #3: PainScorePOD3 (7730) <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> Not recorded <input type="checkbox"/> NA
	Pain Score Discharge: PainScoreDisch (7735) <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> Not recorded <input type="checkbox"/> NA