

The Society of Thoracic Surgeons  
 Adult Cardiac Surgery Database  
 Data Collection Form Version 4.20.2



**STS National Database™**  
 Trusted. Transformed. Real-Time.

\*\*Risk Variable ++NQF

Updated 12/21/2020

A. Administrative	
Participant ID: PartID (25)	Record ID: (software generated) RecordID (30)
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)		
Permanent Street Address: PatAddr (90)	City: PatCity (95)	
Region: PatRegion (100)	ZIP Code: PatZIP (105)	Country: PatientCountry (115)
Race Documented: RaceDocumented (150)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Pt. Declined to Disclose	
Race: (If Yes, select all that apply→) RaceMulti (151)	<input type="checkbox"/> White:	<input type="checkbox"/> Am Indian/Alaskan:
	<input type="checkbox"/> Black/African American: **	<input type="checkbox"/> Hawaiian/Pacific Islander:
	<input type="checkbox"/> Asian: **	<input type="checkbox"/> Other:
Hispanic, Latino or Spanish Ethnicity: ** Ethnicity (185)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Documented	

C. Hospitalization			
Hospital Name: _____ HospName (205)	(If Not Missing →)	Hospital ZIP Code: HospZIP (210)	Hospital Region: HospStat (215)
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 (298)	
<input type="checkbox"/> None/Self		<input type="checkbox"/> None/Self	
<input type="checkbox"/> Medicare (includes commercially managed options)		<input type="checkbox"/> Medicare (includes commercially managed options)	
(If Medicare →)	Commercially Managed Medicare Plan ComMngMedPlnPrim (292) <input type="checkbox"/> Yes <input type="checkbox"/> No (If No ↓)	(If Medicare →)	Commercially Managed Medicare Plan ComMngMedPlnSec (299) <input type="checkbox"/> Yes <input type="checkbox"/> No (If No ↓)
	HICN/MBI Known HICNMBIKnown (293) <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓)		HICN/MBI Known HICNMBIKnownSec (300) <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓)
	HICN/MBI: _____ HICNMBI (294)		HICN/MBI: _____ HICNMBI NumberSec (301)
	Primary Payor Medicare Part B: <input type="checkbox"/> Yes <input type="checkbox"/> No PrimMCareFFS (295)		Secondary Payor Medicare Part B: <input type="checkbox"/> Yes <input type="checkbox"/> No SecondMCareFFS (302)
<input type="checkbox"/> Medicaid (includes commercially managed options)		<input type="checkbox"/> Medicaid (includes commercially managed options)	
<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"/> Military	<input type="checkbox"/> Military
<input type="checkbox"/> Non -U.S. Plan	<input type="checkbox"/> Non -U.S. Plan
<input type="checkbox"/> Other	<input type="checkbox"/> Other
Admit Date: ___/___/___ (mm/dd/yyyy) AdmitDt (305)	Date of Surgery: ** ___/___/___ (mm/dd/yyyy) SSurgDt (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

Height (cm): ** HeightCm (330)	Weight (kg): ** WeightKg (335)	Calculated BMI CalculatedBMI (336) (system calculation)
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 (360)	Diabetes-Control: ** <input type="checkbox"/> None <input type="checkbox"/> Diet only <input type="checkbox"/> Oral <input type="checkbox"/> Insulin <input type="checkbox"/> Other SubQ DiabCtrl (365) <input type="checkbox"/> Other <input type="checkbox"/> Unknown	
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: InfEndCult (395)	<input type="checkbox"/> Culture negative <input type="checkbox"/> Strep species <input type="checkbox"/> MRSA <input type="checkbox"/> MSSA <input type="checkbox"/> Coagulase negative staph <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: ** TobaccoUse (400)	<input type="checkbox"/> Never smoker <input type="checkbox"/> Current every day smoker <input type="checkbox"/> Current some day smoker <input type="checkbox"/> Smoker, current status (frequency) unknown <input type="checkbox"/> Former smoker <input type="checkbox"/> Smoking status unknown	
Chronic 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: ChrLungDType (410)	<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
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 (425)
Room Air ABG Performed: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) ABG (435)	Carbon Dioxide Level: _____ PCO2 (440)	Oxygen Level : _____ PO2 (445)
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 within One Year: ** <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown IVDrugAb (470)	(If Illicit Drug Use = Yes→)	Intravenous Drug Use within One Year: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown IVDrugUse1Yr (471) Drug use with 30 days of procedure? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown DrugUse30D (472)
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 LiverDis (485)	Liver Cirrhosis <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown LiverCirrhosis (486)	(If Liver Cirrhosis = Yes→) Child –Pugh Class <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Unknown LiverChildPugh (488)
Immunocompromised Present: ** <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown ImmSupp (492)	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)	
Unresponsive State: ** <input type="checkbox"/> Yes <input type="checkbox"/> No UnrespStat (512)	Syncope: ** <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Syncope (515)	
Cerebrovascular Disease: ** <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown CVD (525)		
(If Yes→)	Prior CVA: ** <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →) CVA (530)	Prior CVA-When: ** <input type="checkbox"/> <= 30 days <input type="checkbox"/> > 30 days CVAWhen (535)
	CVD TIA: ** <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown CVDTIA (540)	
	CVD Carotid Stenosis: <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Both <input type="checkbox"/> None <input type="checkbox"/> Not Documented CVDCarSten (545)	

(If Right or Both →)	Severity of stenosis on the right carotid artery: ** <input type="checkbox"/> 50-79% <input type="checkbox"/> 80 – 99% <input type="checkbox"/> 100% <input type="checkbox"/> Not documented CVDStenRt (550)
(If Left or Both →)	Severity of stenosis on the left carotid artery: ** <input type="checkbox"/> 50-79% <input type="checkbox"/> 80 – 99% <input type="checkbox"/> 100% <input type="checkbox"/> Not documented CVDStenLft (555)
History of previous carotid artery surgery and/or stenting: ** <input type="checkbox"/> Yes <input type="checkbox"/> 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, Sodium, Creatinine, Bilirubin and INR are expected

WBC Count: ** WBC (565)	Hemoglobin: RFHemoglobin (570)	Hematocrit: ** Hct (575)	Platelet Count: ** Platelets (580)
Total Albumin: TotAlbumin (585)	A1C Level: A1cLvl (590)	BNP BNP (595)	
Sodium: Sodium (600)	Last Creatinine Level **: CreatLst (605)	Total Bilirubin: TotBlrbn (610)	INR: INR (615)
HIT Antibodies <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable HITAnti (620)		MELD Score: (System Calculation) MELDScr (625)	

Five Meter Walk Test Done:  Yes  No  Non-ambulatory patient  
FiveMWalkTest (645)

(If Yes →) Time 1: \_\_\_\_ (seconds) Time 2: \_\_\_\_ (seconds) Time 3 : \_\_\_\_ (seconds)  
FiveMWalk1 (650) FiveMWalk2 (655) FiveMWalk3 (660)

Did the patient have a laboratory confirmed diagnosis of Covid-19?  No (Harvest Code 10)  
TempCode (7230)  Yes, prior to hospitalization for this surgery (Harvest Code 11)  
 Yes, in hospital prior to surgery (Harvest Code 12)  
 Yes, in hospital after surgery (Harvest Code 13)  
 Yes, after discharge within 30 days of surgery (Harvest Code 14)

Date of Positive Covid-19 Test (closest to OR date) \_\_\_\_/\_\_\_\_/\_\_\_\_ (mm/dd/yyyy)  
TempDt (7225)

**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: \*\*  Yes  No  
POCPCI (775)

(If Yes →) PCI Performed Within This Episode Of Care: \*\*  Yes, at this facility  Yes, at some other acute care facility  No  
POCPCIWhen (780)  
(If Yes, at this facility or Yes, at some other acute care facility ↓)

Indication for Surgery:  PCI Complication  PCI Failure without Clinical Deterioration  
 PCI Failure with Clinical Deterioration  PCI/Surgery Staged (not STEMI)  
 PCI for STEMI, multivessel disease  Other

PCI Stent:  Yes  No PCI Interval: \*\*  <= 6 Hours  > 6 Hours  
 POCPCISurg (785) POCPCISt (790) POCPCIn (800)

Other Previous Cardiac Interventions: \*\*  Yes  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 arrhythmia							
Ablation, catheter, other or unknown							
Ablation, catheter, ventricular arrhythmia							
Ablation, surgical, atrial arrhythmia							
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							
Myectomy (not congenital)							
Permanent 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)							
Primary Coronary Symptom for Surgery:** CardSympTimeOfAdm (895)		<input type="checkbox"/> No Coronary Symptoms <input type="checkbox"/> Angina Equivalent <input type="checkbox"/> Stable Angina <input type="checkbox"/> Unstable Angina <input type="checkbox"/> ST Elevation MI (STEMI) <input type="checkbox"/> Non-ST Elevation MI (Non-STEMI) <input type="checkbox"/> Other					
Heart Failure: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes→) HeartFail (911)		Timing:** <input type="checkbox"/> Acute <input type="checkbox"/> Chronic <input type="checkbox"/> Both HeartFailTmg (912)		Type: <input type="checkbox"/> Systolic <input type="checkbox"/> Diastolic <input type="checkbox"/> Both <input type="checkbox"/> Unavailable 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)							
Cardiac Arrhythmia: <input type="checkbox"/> Yes <input type="checkbox"/> No Arrhythmia (945)							
(If Arrhythmia = Yes →) Permanently Paced Rhythm: <input type="checkbox"/> Yes <input type="checkbox"/> No ArrhythPPaced (947)							
(If Arrhythmia = 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 is not None →)		Atrial Fibrillation Type: <input type="checkbox"/> Paroxysmal <input type="checkbox"/> Persistent ArrhythAFib (971)**					
(If AFibrillation = Recent →)		Was patient in A-fib at OR Entry? <input type="checkbox"/> Yes <input type="checkbox"/> No AFibRecOREntry (972)					

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 MedASAOnc (1072)
	Glycoprotein IIb/IIIa ** MedGP (1073)	Within 24 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No
Anticoagulants (Intravenous/ SubQ) MedACoag (1075)	Within 48 hours	<input type="checkbox"/> Yes <input type="checkbox"/> No MedACMN (1080)	
		(If Yes →)	<input type="checkbox"/> Heparin (Unfractionated) <input type="checkbox"/> Heparin (Low Molecular) <input type="checkbox"/> Both

Anticoagulant	Warfarin (Coumadin) MedCoum5Days (1091)	Within 5 days	<input type="checkbox"/> Other <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
			(If Yes→) Coumadin Discontinuation: _____ (# days prior to surgery) MedCoum5Dis (1092)
	Direct Oral Anticoagulant (DOAC) MedDOAC (1093)	Within 5 days	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
			(If Yes→) DOAC Discontinuation: _____ (# days prior to surgery) MedDOAC5Dis (1094)
	Thrombolytics MedThrom (1125)	Within 24 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 : <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) CarCathPer (1145)	Cardiac Catheterization Date: ___/___/_____ CarCathDt (1150)
Coronary Anatomy/Disease known: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) CorAnatDisKnown (1155)	
Number Diseased Vessels : ** NumDisV (1170) (If one, two or three vessel disease ↓)	
<input type="checkbox"/> None <input type="checkbox"/> One <input type="checkbox"/> Two <input type="checkbox"/> Three	
**Left Main stenosis ≥ 50% known <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A StenLeftMain (1174)	
(If Yes→)	Is location of stenosis known: <input type="checkbox"/> Yes <input type="checkbox"/> No StenLeftMainLctnKn (1176)
	(If Yes select all that apply→) <input type="checkbox"/> Native Artery Stenosis <input type="checkbox"/> Stenotic Graft <input type="checkbox"/> Stenotic Stent StenLeftMainLctn (1177)
**LAD distribution stenosis ≥ 50% known <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A LADDistSten (1178)	
(If Yes→)	<input type="checkbox"/> 50-69% <input type="checkbox"/> ≥ 70% LADDistStenPercent (1179)
	Is location of stenosis known: <input type="checkbox"/> Yes <input type="checkbox"/> No LADDistStenCurRevLock (1180)
	(If Yes select all that apply→) <input type="checkbox"/> Native Artery Stenosis <input type="checkbox"/> Stenotic Graft <input type="checkbox"/> Stenotic Stent LADDistStenCurRev (1181)
Ramus stenosis ≥ 50% known <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A RamusSten (1182)	
(If Yes→)	<input type="checkbox"/> 50-69% <input type="checkbox"/> ≥ 70% RamusStenPercent (1183)
	Is location of stenosis known: <input type="checkbox"/> Yes <input type="checkbox"/> No RamusStenCurRevLock (1184)
	(If Yes select all that apply→) <input type="checkbox"/> Native Artery Stenosis <input type="checkbox"/> Stenotic Graft <input type="checkbox"/> Stenotic Stent RamusStenCurRev (1185)
Circumflex distribution stenosis ≥ 50% known <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A CircDistSten (1186)	
(If Yes→)	<input type="checkbox"/> 50-69% <input type="checkbox"/> ≥ 70% CircDistStenPercent (1187)
	Is location of stenosis known: <input type="checkbox"/> Yes <input type="checkbox"/> No CircDistStenCurRevLock (1188)
	(If Yes select all that apply→) <input type="checkbox"/> Native Artery Stenosis <input type="checkbox"/> Stenotic Graft <input type="checkbox"/> Stenotic Stent CircDistStenCurRev (1189)
RCA distribution stenosis ≥ 50% known <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A RCADistSten (1190)	
(If Yes→)	<input type="checkbox"/> 50-69% <input type="checkbox"/> ≥ 70% RCADistStenPercent (1191)
	Is location of stenosis known: <input type="checkbox"/> Yes <input type="checkbox"/> No RCADistStenCurRevLock (1192)
	(If Yes select all that apply→) <input type="checkbox"/> Native Artery Stenosis <input type="checkbox"/> Stenotic Graft <input type="checkbox"/> Stenotic Stent RCADistStenCurRev (1193)
Ejection Fraction Done: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) HDEFD (1540)	Ejection Fraction: ** _____ (%) HDEF (1545)

Dimensions Available: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) <b>DimAvail (1555)</b>		LV End-Systolic Dimension: _____ (mm) <b>LVSD (1560)</b>	LV End-Diastolic Dimension: _____ (mm) <b>LVEDD (1565)</b>
PA Systolic Pressure Measured: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) <b>PASYSMeas (1570)</b>		PA Systolic Pressure: _____ mmHg <b>PASYS (1575)</b>	
<b>Aortic Valve</b>			
Aortic Valve Regurgitation: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AorticValveRegurg (1585)</b>			
(If Yes →)		Aortic Valve Regurgitation: ** <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented <b>VDInsufA (1590)</b>	
Aortic Valve Stenosis: ** <input type="checkbox"/> Yes <input type="checkbox"/> No <b>VDStenA (1600)</b>			
(If Yes →)		Aortic Valve Stenosis: <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented <b>AVStenosis (1601)</b>	
(If Yes →)		Hemodynamic/Echo Data Available: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AoHemoDatAvail (1605)</b>	
(If Yes →)		Aortic Valve Area: _____ cm <sup>2</sup> <b>VDAoVA (1610)</b>	
		Mean Gradient: _____ mmHg <b>VDGradA (1615)</b>	
		Aortic Jet Velocity (V <sub>max</sub> ): _____ m/s <b>VDVMax (1616)</b>	
Aortic Valve Disease: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>VDAort (1617)</b>			
(If Aortic Valve Disease, Yes→)		AV Disease Etiology: ** Choose PRIMARY Etiology (one) <b>VDAoPrimEt (1646)</b>	
<input type="checkbox"/> Bicuspid valve disease	<input type="checkbox"/> Primary Aortic Disease, Atherosclerotic Aneurysm		
<input type="checkbox"/> Unicuspid valve disease	<input type="checkbox"/> Primary Aortic Disease, Ehlers-Danlos Syndrome		
<input type="checkbox"/> Quadricuspid valve disease	<input type="checkbox"/> Primary Aortic Disease, Hypertensive Aneurysm		
<input type="checkbox"/> Congenital (other than Bicuspid, Unicuspid, or Quadricuspid)	<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"/> Radiation induced heart disease		
<input type="checkbox"/> Degenerative- Leaflet perforation/hole	<input type="checkbox"/> Reoperation-Failure of previous AV repair or replacement		
<input type="checkbox"/> Endocarditis, native valve with root abscess	<input type="checkbox"/> Rheumatic		
<input type="checkbox"/> Endocarditis, native valve without root abscess	<input type="checkbox"/> Supravalvular Aortic Stenosis		
<input type="checkbox"/> Endocarditis, prosthetic valve with root abscess	<input type="checkbox"/> Trauma		
<input type="checkbox"/> Endocarditis, prosthetic valve without root abscess	<input type="checkbox"/> Carcinoid		
<input type="checkbox"/> LV Outflow Tract Pathology, HOCM	<input type="checkbox"/> Tumor, Myxoma		
<input type="checkbox"/> LV Outflow Tract Pathology, Sub-aortic membrane	<input type="checkbox"/> Tumor, Papillary Fibroelastoma		
<input type="checkbox"/> LV Outflow Tract Pathology, Sub-aortic tunnel	<input type="checkbox"/> Tumor, Other		
<input type="checkbox"/> LV Outflow Tract Pathology, Other	<input type="checkbox"/> Mixed Etiology		
<input type="checkbox"/> Primary Aortic Disease, Aortic Dissection	<input type="checkbox"/> Not Documented		
<b>Mitral Valve</b>			
Mitral Valve Regurgitation: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>MVRegurg (1679)</b>			
(If Yes →)		Mitral Regurgitation: ** <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented <b>VDInsufM (1680)</b>	
Mitral Valve Stenosis: ** <input type="checkbox"/> Yes <input type="checkbox"/> No <b>VDStenM (1690)</b>			
(If Yes →)		Mitral Valve Stenosis: <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented <b>MVStenDeg (1691)</b>	
		Hemodynamic/ Echo data available: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>MiHemoDatAvail (1695)</b>	
(If Yes →)		Valve Area: _____ cm <sup>2</sup> <b>VDMVA (1700)</b>	
		Mean Gradient: _____ mmHg <b>VDGradM (1705)</b>	
Mitral Valve Disease: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>VDMit (1710)</b>			
Choose PRIMARY Lesion (one): <b>VDMitDis (1711)</b> (If Mitral Valve Disease, Yes ↓)			
<input type="checkbox"/> Class I – Normal Leaflet Mobility (If Class I →)		<b>VDMitDisClSIty (1712)</b>	
<input type="checkbox"/> Class II – Increased Leaflet Mobility (If Class II →)		<b>VDMitDisClSIty (1713)</b>	
		<input type="checkbox"/> Pure Annular Dilatation <input type="checkbox"/> Endocarditis, Native Valve <input type="checkbox"/> Other/ Unknown/Not Available	
		<input type="checkbox"/> Myxomatous degenerative prolapse/flail <input type="checkbox"/> Endocarditis <input type="checkbox"/> Other/Unknown/Not Available	

		(If Myxomatous→) VDMitDisClslIMyo (1714)	<input type="checkbox"/> Posterior Leaflet <input type="checkbox"/> Anterior Leaflet <input type="checkbox"/> Both
<input type="checkbox"/> Class III A– Restricted Leaflet Mobility (systole and diastole) (If Class III A →) VDMitDisClslIIATy (1715)		<input type="checkbox"/> Rheumatic <input type="checkbox"/> Tumor (Carcinoid or Other) <input type="checkbox"/> Radiation Induced Heart Disease <input type="checkbox"/> MAC <input type="checkbox"/> Congenital <input type="checkbox"/> Other/Unknown/Not Available	
<input type="checkbox"/> Class III B – Restricted Leaflet Mobility (systole only) (If Class III B →) VDMitDisClslIIIBTy (1716)		<input type="checkbox"/> Ischemic (acute/chronic) <input type="checkbox"/> Non-ischemic Cardiomyopathy <input type="checkbox"/> HCM <input type="checkbox"/> Other/Unknown/Not Available	
<input type="checkbox"/> Mixed Lesion (Type II and Type IIIA) (If Mixed Lesion →) VDMitDisMixedTy (1717)		<input type="checkbox"/> Mixed leaflet lesion (prolapse/flail and restriction) <input type="checkbox"/> Congenital <input type="checkbox"/> MAC <input type="checkbox"/> Other/Unknown/Not Available	
<input type="checkbox"/> Acute Papillary muscle rupture			
<input type="checkbox"/> Reoperative-Failure of previous MV repair or replacement			
<input type="checkbox"/> Other/Unknown/Not Available			

### Tricuspid Valve

Tricuspid Valve Regurgitation: <input type="checkbox"/> Yes <input type="checkbox"/> No TricuspidVRegurg (1774)		
(If Yes→)	Tricuspid Regurgitation: ** <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented VDInsuffT (1775)	
Tricuspid Valve Stenosis: Yes <input type="checkbox"/> No <input type="checkbox"/> VDStenT (1776)		
(If Yes→)	Tricuspid Valve Stenosis: <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented TricuspidValveSten (1777)	
Tricuspid Valve Disease: <input type="checkbox"/> Yes <input type="checkbox"/> No VDTr (1778)		
(If Tricuspid Disease, Yes →)	Tricuspid Annular Echo Measurement Available: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) DTrAnnMeas (1779)	Tricuspid Diameter: _____ cm VDTrAnnSize (1780)

(If Tricuspid Disease, Yes ↓) TV Etiology: Choose ONE PRIMARY Etiology: VDTrPrimEt (1811)

<input type="checkbox"/>	Functional/ secondary	<input type="checkbox"/>	Rheumatic
<input type="checkbox"/>	Endocarditis, Native Valve	<input type="checkbox"/>	Tumor
<input type="checkbox"/>	Endocarditis, Prosthetic Valve	<input type="checkbox"/>	Radiation induced heart disease
<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 Valve Regurgitation: <input type="checkbox"/> Yes <input type="checkbox"/> No PulmonicValveRegurg (1812)		
(If Yes→)	Pulmonic Valve Regurgitation: <input type="checkbox"/> Trivial/Trace <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented VDInsufP (1820)	
Pulmonic Valve Stenosis: <input type="checkbox"/> Yes <input type="checkbox"/> No VDStenP (1822)		
(If Yes→)	Pulmonic Valve Stenosis: <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not Documented PulmValveSten (1823)	
	Hemodynamic /Echo data available: <input type="checkbox"/> Yes <input type="checkbox"/> No PuHemoDatAvail (1824)	
(If Yes→)	Mean Gradient : _____ mmHg VDGradP (1825)	

Pulmonic Valve Disease: <input type="checkbox"/> Yes <input type="checkbox"/> No VDPulm (1828)			
(If Pulmonic Valve Disease, Yes→)	Etiology: (choose one) VDPuEt (1855)		
<input type="checkbox"/>	Acquired	<input type="checkbox"/>	Endocarditis
<input type="checkbox"/>	Radiation induced heart disease	<input type="checkbox"/>	Endocarditis, Prosthetic valve
<input type="checkbox"/>	Congenital, s/p Tetralogy of Fallot (TOF) repair	<input type="checkbox"/>	Mixed etiology
<input type="checkbox"/>	Congenital, no prior Tetralogy of Fallot (TOF) repair	<input type="checkbox"/>	Other
<input type="checkbox"/>	Reoperation-Failure of previous PV repair or replacement	<input type="checkbox"/>	Not Documented



<b>I. Operative</b>																															
Surgeon: _____ <b>Surgeon (1955)</b>	Surgeon NPI: _____ <b>SurgNPI (1960)</b>																														
Taxpayer Identification Number: _____ <b>TIN (1965)</b>																															
Indicate whether the STS Risk Calculator score was discussed with the patient/family prior to surgery. ++ <b>RiskDiscussed (1966)</b>																															
<input type="checkbox"/> Yes, STS risk calculator score was calculated and discussed with the patient/family prior to surgery as documented in the medical record <input type="checkbox"/> 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 <input type="checkbox"/> NA, Not applicable (emergent or salvage case, or no risk model available for this procedure)																															
Incidence: ** <b>Incidence (1970)</b>	<input type="checkbox"/> First cardiovascular surgery <input type="checkbox"/> First re-op cardiovascular surgery <input type="checkbox"/> Second re-op cardiovascular surgery <input type="checkbox"/> Third re-op cardiovascular surgery <input type="checkbox"/> Fourth or more re-op cardiovascular surgery <input type="checkbox"/> NA- not a cardiovascular surgery																														
Status: ** <b>Status (1975)</b>	<input type="checkbox"/> Elective <input type="checkbox"/> Urgent <input type="checkbox"/> Emergent <input type="checkbox"/> Emergent Salvage (If Urgent or Emergent or Emergent Salvage choose the most pressing reason ↓) <b>Urgent / Emergent/ Emergent Salvage reason:</b> <b>UrgEmergRsn (1990)</b>																														
	<table border="0"> <tr> <td><input type="checkbox"/> AMI</td> <td><input type="checkbox"/> PCI Incomplete without clinical deterioration</td> </tr> <tr> <td><input type="checkbox"/> Anatomy</td> <td><input type="checkbox"/> PCI or attempted PCI with clinical deterioration</td> </tr> <tr> <td><input type="checkbox"/> Aortic Aneurysm</td> <td><input type="checkbox"/> Pulmonary Edema</td> </tr> <tr> <td><input type="checkbox"/> Aortic Dissection</td> <td><input type="checkbox"/> Pulmonary Embolus</td> </tr> <tr> <td><input type="checkbox"/> CHF</td> <td><input type="checkbox"/> Rest Angina</td> </tr> <tr> <td><input type="checkbox"/> Device Failure</td> <td><input type="checkbox"/> Shock, Circulatory Support</td> </tr> <tr> <td><input type="checkbox"/> Diagnostic/Interventional Procedure Complication</td> <td><input type="checkbox"/> Shock, No Circulatory Support</td> </tr> <tr> <td><input type="checkbox"/> Endocarditis</td> <td><input type="checkbox"/> Syncope</td> </tr> <tr> <td><input type="checkbox"/> Failed Transcatheter Valve Therapy , acute annular disruption</td> <td><input type="checkbox"/> Transplant</td> </tr> <tr> <td><input type="checkbox"/> Failed Transcatheter Valve Therapy , acute device malposition</td> <td><input type="checkbox"/> Trauma</td> </tr> <tr> <td><input type="checkbox"/> Failed Transcatheter Valve Therapy , subacute device dysfunction</td> <td><input type="checkbox"/> USA</td> </tr> <tr> <td><input type="checkbox"/> IABP</td> <td><input type="checkbox"/> Valve Dysfunction</td> </tr> <tr> <td><input type="checkbox"/> Infected Device</td> <td><input type="checkbox"/> Worsening CP</td> </tr> <tr> <td><input type="checkbox"/> Intracardiac mass or thrombus</td> <td><input type="checkbox"/> Other</td> </tr> <tr> <td><input type="checkbox"/> Ongoing Ischemia</td> <td></td> </tr> </table>	<input type="checkbox"/> AMI	<input type="checkbox"/> PCI Incomplete without clinical deterioration	<input type="checkbox"/> Anatomy	<input type="checkbox"/> PCI or attempted PCI with clinical deterioration	<input type="checkbox"/> Aortic Aneurysm	<input type="checkbox"/> Pulmonary Edema	<input type="checkbox"/> Aortic Dissection	<input type="checkbox"/> Pulmonary Embolus	<input type="checkbox"/> CHF	<input type="checkbox"/> 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	
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Initial Operative Approach: <b>OPApp (2100)</b>	<input type="checkbox"/> Full conventional sternotomy <input type="checkbox"/> Thoracoabdominal Incision <input type="checkbox"/> Partial sternotomy <input type="checkbox"/> Percutaneous <input type="checkbox"/> Sub-xiphoid <input type="checkbox"/> Port Access <input type="checkbox"/> Thoracotomy <input type="checkbox"/> Other																														
Approach converted during procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>ApproachCon (2105)</b>																															
Robot Used: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) <b>Robotic (2110)</b>	<input type="checkbox"/> Used for entire operation <input type="checkbox"/> Used for part of the operation <b>RobotTim (2115)</b>																														
Coronary Artery Bypass Procedure Performed: <b>OpCAB (2120)</b>	<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 (If Yes complete Section J)																														
Aorta Procedure Performed: <b>AortProc (2123)</b>	<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 (If Yes complete Section M 2) (If Aorta Procedure performed →) <b>Did the surgeon provide input for aortic surgery data abstraction?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AortProcSurgInput (2124)</b>																														
Valve Procedure Performed: <b>OpValve (2129)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No  Was a valve explanted: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>ValExp (2130)</b> (If Yes complete Section K) <table border="0"> <tr> <td rowspan="2" style="vertical-align: middle;">(If Yes →)</td> <td>Aortic Valve Procedure performed: <b>VSAV (2131)</b></td> <td> <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               </td> </tr> <tr> <td>(If Yes →)</td> <td>Was a procedure performed on the Aorta? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AVAortaProcPerf (2132)</b> (If 'Yes' complete M2; If 'No' complete K1)</td> </tr> <tr> <td></td> <td>Mitral Valve Procedure performed: <b>VSMV (2133)</b></td> <td> <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            (If Yes complete K2)         </td> </tr> </table>	(If Yes →)	Aortic Valve Procedure performed: <b>VSAV (2131)</b>	<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	(If Yes →)	Was a procedure performed on the Aorta? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AVAortaProcPerf (2132)</b> (If 'Yes' complete M2; If 'No' complete K1)		Mitral Valve Procedure performed: <b>VSMV (2133)</b>	<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 (If Yes complete K2)																						
(If Yes →)	Aortic Valve Procedure performed: <b>VSAV (2131)</b>		<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																												
	(If Yes →)	Was a procedure performed on the Aorta? <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AVAortaProcPerf (2132)</b> (If 'Yes' complete M2; If 'No' complete K1)																													
	Mitral Valve Procedure performed: <b>VSMV (2133)</b>	<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 (If Yes complete K2)																													

		Tricuspid Valve Procedure performed: VSTV (2134)	<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 (If Yes complete K3)	
		Pulmonic Valve Procedure performed: VSPV (2135)	<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 (If 'Yes' complete K4)	
		Did the surgeon provide input for valve surgery data abstraction? <input type="checkbox"/> Yes <input type="checkbox"/> No OpValSurgInput (2136)		
Mechanical Assist Device/Ventricular Assist Device: <input type="checkbox"/> Yes <input type="checkbox"/> No (If 'Yes' complete section L) (Present on Admission/Implanted/Explanted) MechVentAssistDevice (2137)				
Other Cardiac Procedure, except Afib: <input type="checkbox"/> Yes, planned OpOCard (2140) <input type="checkbox"/> Yes, unplanned due to surgical complication <input type="checkbox"/> Yes, unplanned due to unsuspected disease or anatomy <input type="checkbox"/> No (If Yes, Complete Section M)				
Afib Procedure : <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, Complete Section M 1) AFibProc (2145)				
(If Yes →) Did the surgeon provide input for Afib data abstraction? <input type="checkbox"/> Yes <input type="checkbox"/> No AFibProcSurgInput (2146)				
Other Cardiac Procedure, Congenital Procedure (Except Unicuspid, Bicuspid, Quadricuspid Valve): <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, Complete Section M 3) OCarCong (2150)				
Other Non-Cardiac Procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, Complete Section N) OpONCard (2155)				
Enter up to 10 CPT-1 Codes pertaining to the surgery for which the data collection form was initiated:				
1. _____ CPT1Code1 (2195)	2. _____ CPT1Code2 (2200)	3. _____ CPT1Code3 (2205)	4. _____ CPT1Code4 (2210)	5. _____ CPT1Code5 (2215)
6. _____ CPT1Code6 (2220)	7. _____ CPT1Code7 (2225)	8. _____ CPT1Code8 (2230)	9. _____ CPT1Code9 (2235)	10. _____ CPT1Code10 (2240)
OR Entry Date And Time: ____/____/____ : ____ (mm/dd/yyyy hh:mm - 24 hr clock) OREntryDT (2245)				
OR Exit Date And Time: ++ ____/____/____ : ____ (mm/dd/yyyy hh:mm - 24 hr clock) ORExitDT (2250)				
General Anesthesia: <input type="checkbox"/> Yes <input type="checkbox"/> No (If General Anesthesia No →) GenAnes (2251)		Procedural Sedation : <input type="checkbox"/> Yes <input type="checkbox"/> No ProcSed (2252)		
(If General Anesthesia Yes →)		Intubation: <input type="checkbox"/> Yes, prior to entering OR for this procedure Intubate (2253) <input type="checkbox"/> Yes, in OR for this procedure <input type="checkbox"/> No		
Skin Incision Start Date and Time: ____/____/____ : ____ (mm/dd/yyyy hh:mm - 24 hr clock) SISStartDT (2265)				
Skin Incision Stop Date and Time: ____/____/____ : ____ (mm/dd/yyyy hh:mm - 24 hr clock) SISStopDT (2270)				
Appropriate Antibiotic Selection: ++ AbxSelect (2280) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Exclusion		Appropriate Antibiotic Administration Timing: AbxTiming (2285) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Exclusion		Appropriate Antibiotic Discontinuation: ++ AbxDisc (2290) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Exclusion
Temperature Measured: <input type="checkbox"/> Yes <input type="checkbox"/> No TempMeas (2296)				
(If Yes →) Lowest Temperature (°C): _____ LwstTemp (2300)		Temperature Source: _____ LwstTempSrc (2305) <input type="checkbox"/> Esophageal <input type="checkbox"/> CBP venous return <input type="checkbox"/> Bladder <input type="checkbox"/> Nasopharyngeal <input type="checkbox"/> Tympanic <input type="checkbox"/> Rectal <input type="checkbox"/> Jugular-Venous <input type="checkbox"/> Oxygenator arterial outlet blood (CBP Arterial blood) <input type="checkbox"/> Pulmonary Artery <input type="checkbox"/> Other <input type="checkbox"/> Unknown		
Lowest Intra-op Hemoglobin : _____ LwstIntraHemo (2310)		Lowest Intra-op Hematocrit : _____ LwstHct (2315)		Highest Intra-op Glucose: _____ HighIntraGlu (2320)
Perfusion Strategy CPBUtil (2325)		<input type="checkbox"/> None <input type="checkbox"/> Left Heart Bypass <input type="checkbox"/> Combination (If Combination →) Combination Plan: <input type="checkbox"/> Planned <input type="checkbox"/> Unplanned (If Unplanned ↓) CPBCmb (2330) Unplanned Reason: <input type="checkbox"/> Exposure/visualization <input type="checkbox"/> Bleeding CPBCmbR (2335) <input type="checkbox"/> Inadequate size/ diffuse disease of distal vessel <input type="checkbox"/> Hemodynamic instability (hypotension/arrhythmias) <input type="checkbox"/> Conduit quality and/or trauma <input type="checkbox"/> Other		
<input type="checkbox"/> Full		(If Left Heart Bypass, Combination or Full ↓)		

	Arterial Cannulation Insertion Site: (Select all that apply↓) <b>ArtCannInsertSite (2336)</b> <input type="checkbox"/> Aortic <input type="checkbox"/> Axillary <input type="checkbox"/> Femoral <input type="checkbox"/> Innominate <input type="checkbox"/> Other	
	Venous Cannulation Insertion Site: (Select all that apply↓) <b>VenCannInsertSite (2361)</b> <input type="checkbox"/> Femoral <input type="checkbox"/> Pulmonary Vein <input type="checkbox"/> Jugular <input type="checkbox"/> SVC <input type="checkbox"/> Rt. Atrial <input type="checkbox"/> Lt. Atrial <input type="checkbox"/> Other	
	Cardiopulmonary Bypass Time (minutes): _____ <b>PerfusTm (2400)</b>	
Circulatory Arrest: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>CircArr (2405)</b>		
(If Circulatory Arrest = Yes→)	Lowest Hematocrit during CPB: _____ <b>LowestHematocritCPB (2406)</b>	
	Circulatory Arrest Without Cerebral Perfusion Time: _____ (min) <b>DHCATm (2410)</b>	
	Circulatory Arrest With Cerebral Perfusion: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>CPerfUtil (2415)</b>	
	(If Circ Arrest w/ Cerebral Perfusion = Yes →)	Cerebral Perfusion Time: _____ (min) <b>CPerfTime (2420)</b> Cerebral Perfusion Type: <input type="checkbox"/> Antegrade <input type="checkbox"/> Retrograde <input type="checkbox"/> Both antegrade and retrograde <b>CPerfTyp (2425)</b>
Total Circulatory Arrest Time: _____ (System Calculation) <b>TotCircArrTm (2426)</b>		
Cooling Time prior to Circ Arrest: _____ mins <b>CoolingTimePriorCircArr (2427)</b>		
Aortic Occlusion: <input type="checkbox"/> None – beating heart <input type="checkbox"/> Aortic Cross clamp <b>AortOccl (2430)</b> <input type="checkbox"/> None – fibrillating heart <input type="checkbox"/> Balloon Occlusion		
	(If Aortic cross clamp or Balloon occlusion →):	Cross Clamp Time: _____ (min) <b>XClampTm (2435)</b>
Cardioplegia Delivery: <b>CplegiaDeliv (2440)</b> <input type="checkbox"/> None <input type="checkbox"/> Antegrade <input type="checkbox"/> Retrograde <input type="checkbox"/> Both		
	(If Antegrade, Retrograde or Both→) Type of Cardioplegia used: <input type="checkbox"/> Blood <input type="checkbox"/> Crystalloid <input type="checkbox"/> Both <input type="checkbox"/> Other <b>CplegiaType (2445)</b>	
Cerebral Oximetry Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>CerOxUsed (2450)</b>		
Intraop Blood Products: <input type="checkbox"/> Yes <input type="checkbox"/> No, Not Given <input type="checkbox"/> Patient Refused <b>IBldProd (2515)</b>		
(If Yes →)	Red Blood Cell Units: _____ <b>IBdRBCU (2520)</b>	Platelet Dose Pack: _____ <b>IBdPlatDosePk (2521)</b>
	Fresh Frozen Plasma/Plasma Units: _____ <b>IBdFFPU (2525)</b>	Cryoprecipitate Units: _____ <b>IBdCryoU (2535)</b>
Intraop Clotting Factors : <input type="checkbox"/> Yes, Factor VIIa <input type="checkbox"/> Yes, Factor VIII <input type="checkbox"/> Yes, FEIBA <input type="checkbox"/> Yes, Composite <input type="checkbox"/> No <b>IntraClotFact (2545)</b>		
Intraop Prothrombin Complex concentrate: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>IntraopProComCon (2546)</b>		
Was intraop Antifibrinolytic Medication given: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>IAntifibMedGiven (2556)</b>		
(If Yes →)	Intraop Antifibrinolytic Medication (select all that apply): <input type="checkbox"/> Epsilon Amino-Caproic Acid <input type="checkbox"/> Tranexamic Acid <input type="checkbox"/> Aprotinin <b>IAntifibMed (2557)</b>	
Intraoperative TEE Performed post procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) <b>InOpTEE (2560)</b>		
	Highest level aortic insufficiency found: <b>PRepAR (2565)</b> <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	
	Mean Aortic Gradient: _____ <b>PRepAGradM (2566)</b>	
	Aortic Paravalvular leak: <b>PRepAPVL (2567)</b> <input type="checkbox"/> No Prosthetic Valve <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	
	Highest level Mitral insufficiency found: <b>PRepMR (2570)</b>	

<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 Mean Mitral Gradient: _____ PRepMGradM (2571)
Mitral Paravalvular leak: PRepMPVL (2572) <input type="checkbox"/> No Prosthetic Valve <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
Highest level Tricuspid insufficiency found: PRepTR (2575) <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
Mean Tricuspid Gradient: _____ PRepTGradM (2576)
Tricuspid Paravalvular leak: PRepTPVL (2577) <input type="checkbox"/> No Prosthetic Valve <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
Ejection Fraction Measured post procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →)      Ejection Fraction: _____ PPEFMeas (2581)      PPEF (2582)
Surgery followed by a planned PCI: <input type="checkbox"/> Yes <input type="checkbox"/> No PPPlannedPCI (2606)

### J. Coronary Bypass

(If Coronary Artery Bypass = Yes ↓)

Internal Mammary Artery (arteries) used: ++  Yes  No

IMAUsed (2626)

(If Yes→)	Left IMA: <input type="checkbox"/> Yes, pedicle <input type="checkbox"/> Yes, skeletonized <input type="checkbox"/> No/NA LeftIMA (2627)
(If Yes→)	Right IMA: <input type="checkbox"/> Yes, pedicle <input type="checkbox"/> Yes, skeletonized <input type="checkbox"/> No/NA RightIMA (2628)
(If No→)	Reason for no IMA: <input type="checkbox"/> Subclavian stenosis <input type="checkbox"/> Previous mediastinal radiation <input type="checkbox"/> No (bypassable) LAD disease NoIMARsn (2629)
	<input type="checkbox"/> Previous cardiac or thoracic surgery <input type="checkbox"/> Emergent or salvage procedure <input type="checkbox"/> Other- acceptable STS provided exclusion (See Training Manual) <input type="checkbox"/> Other not acceptable STS exclusion (See Training Manual)

Distal Anastomoses with Arterial Conduit(s)  Yes  No

DistAnastArtCond (2630)

(If Yes→)	Total Number of Distal Anastomoses with Arterial Conduits: _____ TotalNoDistAnastArtCond (2631)	
	Distal Anastomoses with Radial Artery Conduit(s) <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) RadialArtUsed (2633)	Total Number of Distal Anastomoses with radial artery conduits: _____ NumRadDA (2634) Radial Artery Harvest and Prep Time: _____ (minutes) RadHarvPrepTm (2636)
(If Yes→)	Total Number of Distal Anastomoses with venous conduits: _____ DistVein (2638)	
	Saphenous Vein Harvest and Prep Time: _____ (minutes) SaphHarvPrepTm (2640)	

Distal Anastomoses with Venous Conduit(s) used:  Yes  No (If Yes→)

VenousCondUsed (2637)

Proximal Technique:  Single Cross Clamp  Partial Occlusion Clamp  Anastomotic Assist Device  None

ProxTech (2710)

**CABG Grid Key:** (Refer to Data Specifications for Harvest Codes)

<b>Proximal Site:</b>	1=Aorta 2=T graft off artery 3=T graft off vein 4=In-situ IMA 5=Other
<b>Distal Site:</b>	1=Left Main Coronary Artery (LMCA) 2=LAD 3= Diagonal 4=Ramus Intermedius 5=Circumflex 6=Obtuse Marginal 7= RCA 8=PDA 9=Posterior Lateral 10=Acute Marginal 11=None
<b>Distal Anastomosis Conduit:</b>	1=In-situ IMA 2=Free IMA 3=Vein 4=Radial artery 5=Other

Please use the key above and enter one

Graft Number	Proximal Site	Distal Site	Conduit	Distal Position	Endarterectomy
#1	1-5 (drop downs) CABProximalSite01 (2730)	1-11 CABDistSite01 (2740)	1-5 CABConduit01 (2750)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos01 (2755)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt01 (2760)
#2 <input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB02 (2770)	1-5 CABProximalSite02 (2790)	1-11 CABDistSite02 (2800)	1-5 CABConduit02 (2810)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos02 (2815)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt02 (2820)
#3	1-5	1-11	1-5	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side	<input type="checkbox"/> Yes <input type="checkbox"/> No

<input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB03 (2830)	CABProximalSite03 (2850)	CABDistSite03 (2860)	CABConduit03 (2870)	CABDistPos03 (2875)	CABEndArt03 (2880)
#4 <input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB04 (2890)	1-5 CABProximalSite04 (2910)	1-11 CABDistSite04 (2920)	1-5 CABConduit04 (2930)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos04 (2935)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt04 (2940)
#5 <input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB05 (2950)	1-5 CABProximalSite05 (2970)	1-11 CABDistSite05 (2980)	1-5 CABConduit05 (2990)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos05 (2995)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt05 (3000)
#6 <input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB06 (3010)	1-5 CABProximalSite06 (3030)	1-11 CABDistSite06 (3040)	1-5 CABConduit06 (3050)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos06 (3055)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt06 (3060)
#7 <input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB07 (3070)	1-5 CABProximalSite07 (3090)	1-11 CABDistSite07 (3100)	1-5 CABConduit07 (3110)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos07 (3115)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt07 (3120)
#8 <input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB08 (3130)	1-5 CABProximalSite08 (3150)	1-11 CABDistSite08 (3160)	1-5 CABConduit08 (3170)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos08 (3175)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt08 (3180)
#9 <input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB09 (3190)	1-5 CABProximalSite09 (3210)	1-11 CABDistSite09 (3220)	1-5 CABConduit09 (3230)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos09 (3235)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt09 (3240)
#10 <input type="checkbox"/> Additional Grafts <input type="checkbox"/> No Additional Grafts CAB10 (3250)	1-5 CABProximalSite10 (3270)	1-11 CABDistSite10 (3280)	1-5 CABConduit10 (3290)	<input type="checkbox"/> Side to Side <input type="checkbox"/> End to Side CABDistPos10 (3295)	<input type="checkbox"/> Yes <input type="checkbox"/> No CABEndArt10 (3300)

**K. Valve Surgery Explant**

(If Valve Explanted (ValExp) is Yes ↓)

First Valve Prosthesis Explant:

Explant Position: ValExpPos (3315)	<input type="checkbox"/> Aortic <input type="checkbox"/> Mitral <input type="checkbox"/> Tricuspid <input type="checkbox"/> Pulmonic
Explant Type: ValExpTyp (3320)	<input type="checkbox"/> Mechanical Valve <input type="checkbox"/> Bioprosthetic Valve <input type="checkbox"/> Homograft <input type="checkbox"/> Autograft <input type="checkbox"/> Annuloplasty Device <input type="checkbox"/> Leaflet Clip <input type="checkbox"/> Transcatheter Valve <input type="checkbox"/> Transcatheter Valve in Valve with prosthetic valve <input type="checkbox"/> Other <input type="checkbox"/> Unknown
Explant Etiology: ValExpEt (3325)	<input type="checkbox"/> Endocarditis <input type="checkbox"/> Incompetence <input type="checkbox"/> Prosthetic Deterioration <input type="checkbox"/> Thrombus <input type="checkbox"/> Failed Repair <input type="checkbox"/> Pannus <input type="checkbox"/> Sizing/Positioning issue <input type="checkbox"/> Other <input type="checkbox"/> Hemolysis <input type="checkbox"/> Paravalvular leak <input type="checkbox"/> Stenosis <input type="checkbox"/> Unknown
Explant Device known: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) ValExpDevKnown (3330)	Explant model#: _____ Unique Device Identifier (UDI): _____ ValExpDev (3335) ValExpUDI (3340)
Year of Implant Known: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) ValExpYrKn (3341)	Year: _____ ValExpYr (3342)

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

ValExp2 (3350)

Explant Position: ValExpPos2 (3355)	<input type="checkbox"/> Aortic <input type="checkbox"/> Mitral <input type="checkbox"/> Tricuspid <input type="checkbox"/> Pulmonic
Explant Type: ValExpTyp2 (3360)	<input type="checkbox"/> Mechanical Valve <input type="checkbox"/> Bioprosthetic Valve <input type="checkbox"/> Homograft <input type="checkbox"/> Autograft <input type="checkbox"/> Annuloplasty Device <input type="checkbox"/> Leaflet Clip <input type="checkbox"/> Transcatheter Valve <input type="checkbox"/> Transcatheter Valve in Valve with prosthetic valve <input type="checkbox"/> Other <input type="checkbox"/> Unknown
Explant Etiology: ValExpEt2 (3365)	<input type="checkbox"/> Endocarditis <input type="checkbox"/> Incompetence <input type="checkbox"/> Prosthetic Deterioration <input type="checkbox"/> Thrombus <input type="checkbox"/> Failed Repair <input type="checkbox"/> Pannus <input type="checkbox"/> Sizing/Positioning issue <input type="checkbox"/> Other <input type="checkbox"/> Hemolysis <input type="checkbox"/> Paravalvular leak <input type="checkbox"/> Stenosis <input type="checkbox"/> Unknown
Explant Device known: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) ValExpDevKnown2 (3370)	Explant model#: _____ Unique Device Identifier (UDI): _____ ValExpDev2 (3375) ValExpDevUDI (3380)
Year of Implant Known: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) ValExp2YrImplantKn (3381)	Year: _____ ValExp2ImplantYr (3382)

Third Valve Prosthesis Explant:  Yes  No (If Yes↓)

ValExp3 (3385)

Explant Positioning ValExpPos3 (3386)	<input type="checkbox"/> Aortic	<input type="checkbox"/> Mitral	<input type="checkbox"/> Tricuspid	<input type="checkbox"/> Pulmonic
Explant Type: ValExpTyp3 (3387)	<input type="checkbox"/> Mechanical Valve	<input type="checkbox"/> Bioprosthetic Valve	<input type="checkbox"/> Homograft	<input type="checkbox"/> Autograft
	<input type="checkbox"/> Annuloplasty Device	<input type="checkbox"/> Leaflet Clip	<input type="checkbox"/> Transcatheter Valve	<input type="checkbox"/> Transcatheter Valve in Valve with prosthetic valve
	<input type="checkbox"/> Other	<input type="checkbox"/> Unknown		
Explant Etiology ValExpEt3 (3388)	<input type="checkbox"/> Endocarditis	<input type="checkbox"/> Incompetence	<input type="checkbox"/> Prosthetic Deterioration	<input type="checkbox"/> Thrombus
	<input type="checkbox"/> Failed Repair	<input type="checkbox"/> Pannus	<input type="checkbox"/> Sizing/Positioning issue	<input type="checkbox"/> Other
	<input type="checkbox"/> Hemolysis	<input type="checkbox"/> Paravalvular leak	<input type="checkbox"/> Stenosis	<input type="checkbox"/> Unknown
Explant Device known: ValExpDevKnown3 (3389)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→)	Explant model#: _____ ValExpDev3 (3390)	Unique Device Identifier (UDI): _____ ValExpDev3UDI (3391)	
Year of Implant Known: ValExp3YrImplantKn (3392)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→)	Year: _____ ValExp3ImplantYr (3393)		

### K. 1. Aortic Valve without concomitant Aorta Procedure

(If AVAortaProcPerf = No ↓)

Procedure Performed:

VSAVPr (3395)

Replacement: (If Replacement↓)

Transcatheter Valve Replacement:  Yes  No (If Yes ↓)

VSTCV (3400)

Approach:  Transapical  Transaxillary  Transfemoral  Transaortic  Subclavian

VSTCVR (3401)  Transiliac  Transeptal  Transcarotid  Transcaval  Other

Surgical valve Replacement:  Yes  No (If Yes ↓)

VSAVSurgRep (3402)

Device type:  Mechanical  Bioprosthetic  Surgeon fashioned pericardium (Ozaki)  Other

VSAVSurgType (3403)

(If Bioprosthetic→)

Valve type:  Stented  Stentless sub coronary valve only  Sutureless/rapid deployment

VSAVSurgBioT (3404)

Repair/Reconstruction (If Repair/Reconstruction, select all that apply ↓)

Repair Type (Select all that apply)+

AVProcRepType (3424)

Commissural suture annuloplasty  Nodular release  Leaflet resection suture

Leaflet plication  Leaflet shaving  Leaflet pericardial patch

Leaflet commissural resuspension suture  Leaflet debridement  Division of fused leaflet raphe

Leaflet free edge reinforcement  Ring annuloplasty external ring  Ring annuloplasty internal ring

External suture annuloplasty  Pannus/Thrombus Removal (Native Valve)

Surgical Prosthetic Valve Intervention (Not Explant of Valve): (Select All That Apply ↓)

Type of Intervention:  Repair of periprosthetic leak  Removal of pannus  Removal of clot  Other

AVSurgProsthValInt (3425)

Aortic annular enlargement:  Yes  No (If Yes ↓)

AnlEnl (3460)

Technique:  Nicks-Nunez  Manougian  Konno  Other  Unknown

AnlEnlTech (3461)

Replacement of non-coronary sinus (Modified Wheat/Modified Yacoub)  Yes  No

AVReplNonCorSin (3471)

Aortic Valve or Valve Repair Device Implant:  Yes  No (If Yes ↓)

AorticImplant (3472)

Implant Model Number: \_\_\_\_\_

VSAoIm (3480)

Implant Size: \_\_\_\_\_

VSAoImSz (3485)

Unique Device identifier (UDI): \_\_\_\_\_

VSAoImUDI (3490)

### K. 2. Mitral Valve Procedure

(If Mitral Valve Procedure Performed = Yes ↓)

Procedure Performed:

VSMVPr (3500)

Repair (If Repair↓)

Repair Approach:  Surgical  Transcatheter

VSMVRepApp (3501)

If Surgical (Select all that apply↓)

VSMVRepAppSurg (3502)

Annuloplasty

Leaflet resection

Neochords (PTFE)

Chordal transfer

	<input type="checkbox"/> Annular decalcification/debridement <input type="checkbox"/> Mitral commissurotomy	<input type="checkbox"/> Leaflet extension/replacement patch <input type="checkbox"/> Mitral commissuroplasty	<input type="checkbox"/> Edge to edge repair <input type="checkbox"/> Leaflet plication <input type="checkbox"/> Mitral cleft repair: (scallop closure): <input type="checkbox"/> Pannus/Thrombus removal (native valve)
	(If Leaflet Resection →)	Resection Location(s): <input type="checkbox"/> Anterior Resection <input type="checkbox"/> Posterior Resection <input type="checkbox"/> Both <b>VSMVResLoc (3503)</b> Resection Method (select all that apply): <b>VSLeafResTypMult (3510)</b> <input type="checkbox"/> Triangular Alone <input type="checkbox"/> Quadrangular Alone <input type="checkbox"/> Resection with Sliding Valvuloplasty <input type="checkbox"/> Resection with Folding Valvuloplasty <input type="checkbox"/> Other	
	(If Neochords (PTFE) →) <b>VSNeochordLoc (3511)</b>	<input type="checkbox"/> Anterior <input type="checkbox"/> Posterior <input type="checkbox"/> Both <input type="checkbox"/> Not Documented	
	(If Chordal Transfer) → <b>VSChordalTransLoc (3512)</b>	<input type="checkbox"/> Anterior Chordal transfer <input type="checkbox"/> Posterior Chordal transfer <input type="checkbox"/> Not Documented	
	(If Leaflet extension/replacement patch →) <b>VSMitRLeafERLoc (3513)</b>	Patch Location: <input type="checkbox"/> Anterior <input type="checkbox"/> Posterior <input type="checkbox"/> Both <input type="checkbox"/> Not Documented	

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)**

Surgical Prosthetic Valve Intervention (Not Explant of Valve): (Select All That Apply ↓)

Type of Intervention:  Repair of periprosthetic leak    Removal of Pannus    Removal of Clot    Other

**SurgProsValInt (3612)**

Implant:  Yes  No (If Yes ↓)

**MitralImplant (3615)**

Implant type:  
**litralImplantTy (3620)**

- |  |  |
|--|--|
| <input type="checkbox"/> Mechanical valve                                  | <input type="checkbox"/> Transcatheter device implanted open heart       |
| <input type="checkbox"/> Bioprosthetic valve                               | <input type="checkbox"/> Transcatheter Replacement Device (Transapical)  |
| <input type="checkbox"/> Annuloplasty Ring Surgical                        | <input type="checkbox"/> Transcatheter Replacement Device (Trans-septal) |
| <input type="checkbox"/> Annuloplasty without ring (pericardial or suture) | <input type="checkbox"/> Annuloplasty Ring Transcatheter                 |
|  | <input type="checkbox"/> Mitral Leaflet clip                             |
|  | <input type="checkbox"/> Other   |

(If Mitral Leaflet Clip →) Number implanted: \_\_\_\_\_ (enter 1-3)

**MitralLeafletClipNum (3621)**

Implant Model Number: \_\_\_\_\_

**VSMilm (3625)**

Implant Size: \_\_\_\_\_

**VSMilmSz (3630)**

Unique Device identifier (UDI): \_\_\_\_\_

**VSMilmUDI (3634)**

Was the device implanted an Model #5300 – Physio Flex Annuloplasty Ring:  Yes  No

**TempYN2 (7220)**

**K.3. Tricuspid Valve Procedure**

(If Tricuspid Valve Procedure Performed Yes ↓)

Tricuspid Procedure Performed

**VSTrPr (3636)**

Repair : (If Repair, select all that apply ↓)

**VSTRepairType (3637)\*\***

<input type="checkbox"/> Annuloplasty (If Annuloplasty →)	<input type="checkbox"/> Transcatheter Clip/Device	<input type="checkbox"/> Leaflet Resection:	<input type="checkbox"/> Pannus/Thrombus Removal (Native Valve)
Type of Annuloplasty: <input type="checkbox"/> Pericardium <input type="checkbox"/> Suture <input type="checkbox"/> Prosthetic Ring <input type="checkbox"/> Prosthetic Band <input type="checkbox"/> Other		<b>OpTricusAnTy (3638)</b>	

Replacement: (If Yes ↓)

Transcatheter Replacement:  Yes  No

**VSTCVTri (3652)**

Surgical Prosthetic Valve Intervention (Not Explant of Valve): (Select All That Apply ↓)

**VSTVSurgProsthValIntType (3653)**

Type of Intervention:  Repair of periprosthetic leak    Removal of Pannus    Removal of Clot    Other

Implant:  Yes  No (If Yes ↓)

**TricuspidImplant (3660)**

Implant Type: <b>TricusImplantTy (3665)</b>	<input type="checkbox"/> Mechanical Valve	<input type="checkbox"/> Annuloplasty device	<input type="checkbox"/> Bioprosthetic Valve	<input type="checkbox"/> Homograft
	<input type="checkbox"/> Transcatheter device implanted open heart	<input type="checkbox"/> Transcatheter Valve	<input type="checkbox"/> Other	

Implant Model Number: \_\_\_\_\_

**VSTrlm (3670)**

Size: \_\_\_\_\_

**VSTrlmSz (3675)**

Unique Device Identifier (UDI): \_\_\_\_\_

VSTrImUDI (3680)

Was the device implanted an Model #5300 – Physio Flex Annuloplasty Ring:  Yes  No

TempYN2 (7200)

Valvectomy:  Yes  No

VSTrValvec (3683)

**K. 4. Pulmonic Valve Procedure**

(If Pulmonic Valve Procedure Performed = Yes ↓)

Procedure Performed:

OpPulm (3690)

- Repair/Leaflet Reconstruction
- Pannus or Thrombus removal
- Replacement (If Replacement→) Transcatheter Replacement:  Yes  No
- Valvectomy

VSTCVPu (3695)

Implant:  Yes  No (If Yes ↓)

PulmonicImplant (3700)

Implant Type: VSPuTypeImp (3701)	<input type="checkbox"/> Surgeon Fashioned <input type="checkbox"/> Commercially Supplied	
(If Surgeon Fashioned →)	Material: <input type="checkbox"/> PTFE (Gore-Tex) <input type="checkbox"/> Pericardium <input type="checkbox"/> Other VSPulmpMat (3702)	
(If Commercially Supplied →)	Device Type: PulmonicImplantTy (3705)	<input type="checkbox"/> Mechanical Valve <input type="checkbox"/> Annuloplasty Device <input type="checkbox"/> Bioprosthetic Valve <input type="checkbox"/> Homograft <input type="checkbox"/> Transcatheter Valve <input type="checkbox"/> Other <input type="checkbox"/> Transcatheter device implanted open heart
Implant Model Number: _____ VSPulm (3710)	Size: _____ VSPulmSz (3715)	
Unique Device Identifier (UDI): _____ VSPulmUDI (3720)		

**L. Mechanical Cardiac Assist Devices**

Planned and consented insertion of a device that can deliver a minimum of 5.0 L of flow using an open surgical approach (transaxillary or transaortic) during the index cardiac procedure.  Yes  No

TempYN1

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

IABP (3725)

IABP Insertion: \*\*  Preop  Intraop  Postop

IABPWhen (3730)

ECMO:  Yes  No (If Yes ↓)

MCADECMO (3766)

ECMO Mode:  Venovenous  Venovenous arterial (VVA)  Venovenous arterial (VVA)

ECMO (3776)

ECMO Initiated: \*\*  Preop  Intraop  Postop  Non-operative

ECMOWhen (3780)

Temporary Assist Device Used:  Yes  No (If Yes ↓)

CathBasAssist (3786)

Position:  Open  Catheter Based

TempAssistDevPos (3787)

Type:  RV  LV  BiV

CathBasAssistTy (3788)

When Inserted: \*\*  Preop  Intraop  Postop

CathBasAssistWhen (3789)

Was patient admitted with VAD  Yes  No (If Yes ↓)

PrevVAD (3790)

Insertion date: \_\_/\_\_/\_\_\_\_

PrevVADD (3800)

Device Model Number: \_\_\_\_\_

PrevVADDevice (3815)

UDI: \_\_\_\_\_

PrevVADUDI (3820)

Previous VAD Explanted During This Admission:

PrevVADExp (3825)

- Yes, not during this procedure
- Yes, during this procedure
- No



Ventricular Assist Device Implanted during this hospitalization  Yes  No

VADImp (3840)

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

- Timing:** 1. Pre-Operative (during same hospitalization and prior to OR trip for CV surgical procedure)  
 2. Stand-alone VAD procedure (Not in conjunction with a CV 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)
- VAD Implant Indication:** 1. Bridge to Transplantation  
 2. Bridge to Recovery  
 3. Destination  
 4. Post cardiotomy Ventricular Failure  
 5. Device Malfunction  
 6. End of (device) Life  
 7. Salvage
- Type:** 1. Right VAD (RVAD)  
 2. Left VAD (LVAD)  
 3. Biventricular VAD (BiVAD)  
 4. Total Artificial Heart (TAH)
- VAD Explant Reason:** 1. Cardiac Transplant  
 2. Recovery  
 3. Device Transfer  
 4. Device-Related Infection  
 5. Device Malfunction  
 6. End of (device) Life
- Device:** See VAD list

(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)
	<b>Initial explant</b>	<b>2nd device explanted?</b>	<b>3rd Device explanted</b>
VAD Explant(s)	<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)
(If Yes, not during this procedure or Yes, during this procedure →) Reason	VExpRsn (3880)	VExpRsn2 (3935)	VExpRsn3 (3990)
(If Yes, not during this procedure →) Date	___/___/___ VExpDt (3885)	___/___/___ VExpDt2 (3940)	___/___/___ VExpDt3 (3995)

### M. Other Cardiac Procedures

(If Other Cardiac Procedure, Except Afib = Yes ↓) See Proc ID Table to determine whether these procedures impact isolate procedure categories

Subaortic Stenosis Resection:  Muscle  Membrane  Other  Not Documented  No

OCarSubaStenResTy (4051)

Pulmonary Thromboembolism:  Acute  Chronic  No

OCPulThromDis (4052)

Myocardial Stem Cell Therapy:  Yes  No

OCarStemCell (4053)

LV Aneurysm Repair:  Yes  No

OCarLVA (4054)

Arrhythmia Device:  Pacemaker  Pacemaker with CRT  ICD  ICD with CRT  Implantable Recorder  None

OCarACD (4055)

Lead Insertion:  Yes  No

OCarLeadInsert (4060)

Lead Extraction:  Yes, planned  Yes, unplanned due to surgical complication  Yes, unplanned due to unsuspected disease or anatomy  No

OCarACDLE (4065)

Transmyocardial revascularization (TMR):  Yes  No

OCarLasr (4110)

Tumor:  Myxoma  Fibroelastoma  Other  No

OCarTumor (4115)

Transplant, Cardiac:  Yes  No

OCarCrTx (4120)

Trauma, Cardiac:  Yes  No

OCarTrma (4125)

Acquired VSD Repair: <input type="checkbox"/> Yes <input type="checkbox"/> No OCarAcqVSD (4131)	
Other Cardiac Procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No OCarOthr (4135)	
ASD Repair <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) OCarASDRep (4136)	ASD Repair Type: <input type="checkbox"/> Congenital (secundum) <input type="checkbox"/> Acquired OCarASDRepTyp (4137)
PFO Repair : <input type="checkbox"/> Yes <input type="checkbox"/> No OCarPFORep (4138)	

### M.1. Atrial Fibrillation Procedures

(If Afib Procedure = Yes ↓)				
Left Atrial Appendage Obliteration <input type="checkbox"/> Epicardially applied occlusion device <input type="checkbox"/> Epicardial Staple <input type="checkbox"/> Epicardial Suture <input type="checkbox"/> Endocardial Suture OCarAAMeth (4139) <input type="checkbox"/> Prior Transcatheter Device In Existence <input type="checkbox"/> Other <input type="checkbox"/> No				
		(If Epicardial applied occlusion device →)	UDI: _____ OCarAAUDI (4141)	
Left Atrial Appendage Amputation: <input type="checkbox"/> Yes <input type="checkbox"/> No OCarAAppAmp (4142)				
Lesion location: <input type="checkbox"/> Epicardial <input type="checkbox"/> Intracardiac <input type="checkbox"/> Both <input type="checkbox"/> None OCarAFibLesLoc (4191)				
		(if not None, select all that apply) → AFibLesMeth (4201)	<input type="checkbox"/> Radiofrequency <input type="checkbox"/> Cut-and-sew <input type="checkbox"/> Cryo	
		(If Radiofrequency→)	OCarAFibMethRadBi (4205)	Bipolar: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Documented
Lesions Documented: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) OCarLesDoc (4240)				
Left Atrial AFibLeftAtrialLes (4242)		<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, select all that apply →) AFibLeftAtrialLesMeth (4244)	<input type="checkbox"/> Pulmonary Vein Isolation <input type="checkbox"/> Posterior Box Lesion <input type="checkbox"/> Mitral Line <input type="checkbox"/> Left atrial appendage line <input type="checkbox"/> Epicardial Coronary Sinus Lesion <input type="checkbox"/> Epicardial Posterior Wall Other (i.e. Convergent procedure) <input type="checkbox"/> Other	
Right Atrial AFibRtAtrialLes (4246)		<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, select all that apply →) AFibRtAtrialLesMeth (4248)	<input type="checkbox"/> SVC Line <input type="checkbox"/> IVC Line <input type="checkbox"/> Tricuspid Completion Line <input type="checkbox"/> Verticle Right Atrial Line <input type="checkbox"/> Right Atrial Appendage Line <input type="checkbox"/> Other	

### M.2. Aorta And Aortic Root Procedures

(If AortProc = Yes ↓)				
Family history of disease of aorta: FamHistAorta (4500)		<input type="checkbox"/> Aneurysm <input type="checkbox"/> Dissection <input type="checkbox"/> Both Aneurysm and Dissection <input type="checkbox"/> Sudden Death <input type="checkbox"/> Unknown <input type="checkbox"/> None		
Patient's genetic history: PatGenHist (4505)		<input type="checkbox"/> Marfan <input type="checkbox"/> Ehlers-Danlos <input type="checkbox"/> Loeys-Dietz <input type="checkbox"/> Non-Specific familial thoracic aortic syndrome <input type="checkbox"/> Aortic Valve Morphology <input type="checkbox"/> Turner syndrome <input type="checkbox"/> Other- <input type="checkbox"/> Unknown <input type="checkbox"/> None		
Prior aortic intervention: PriorAorta (4510)		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes ↓)		
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 (Zone 0 –A)	<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 (Zone 0 – B&C)	<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 (Zones 1,2,3)	<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 (Zones 4,5)	<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 (Zones 6,7)	<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 (Zone 8,9,10,11)	<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)
Current Procedure with Endoleak involvement: <input type="checkbox"/> Yes <input type="checkbox"/> No Endoleak (4620)				

(If Yes →)		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 EndoleakTyILoc (4630)
		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)
		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"/> IIb: endograft fractures or holes <b>EndoleakType (4650)</b>
		Type IV: leak through graft fabric – porosity: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>EndoleakTypeIV (4655)</b>
		Type V: endotension - expansion aneurysm sac without leak: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>EndoleakTypeV (4660)</b>
Current Procedure with Aorta Infection: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Infection (4665)</b>		
(If Yes →)		Aorta Infection Type: <b>InfectType (4670)</b> <input type="checkbox"/> Graft infection <input type="checkbox"/> Valvular endocarditis <input type="checkbox"/> Nonvalvular endocarditis <input type="checkbox"/> Native aorta <input type="checkbox"/> Multiple infection types
Current Procedure with Trauma: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Trauma (4675)</b>		
(If Yes, select all that apply →) <b>AorticTraumaLoc (4676)</b>		<input type="checkbox"/> Root <input type="checkbox"/> Ascending <input type="checkbox"/> Arch <input type="checkbox"/> Descending <input type="checkbox"/> Thoracoabdominal <input type="checkbox"/> Abdominal
Presenting Symptom: <b>Presentation (4710)</b>	<input type="checkbox"/> Pain <input type="checkbox"/> CHF <input type="checkbox"/> Cardiac Arrest <input type="checkbox"/> Syncope <input type="checkbox"/> Infection <input type="checkbox"/> Asymptomatic <input type="checkbox"/> Injury related to Surgical Complication <input type="checkbox"/> Neuro Deficit <input type="checkbox"/> Other <input type="checkbox"/> Unknown	
	(If Neuro Deficit →) <b>AortPresNeuroDef (4711)</b>	<input type="checkbox"/> Stroke <input type="checkbox"/> Limb numbness <input type="checkbox"/> Paralysis <input type="checkbox"/> Hoarseness (acute vocal cord dysfunction)
Primary Indication: <b>PrimIndic (4712)</b>	<input type="checkbox"/> Aneurysm <input type="checkbox"/> Dissection <input type="checkbox"/> Other	
(if Aneurysm →)	Etiology: <b>AnEtiology (4720)</b>	<input type="checkbox"/> Atherosclerosis <input type="checkbox"/> Infection <input type="checkbox"/> Inflammatory <input type="checkbox"/> Connective Tissue/Syndromic Disorder <input type="checkbox"/> Ulcerative Plaque/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"/> Aortic Valve Morphology <input type="checkbox"/> Chronic Dissection <input type="checkbox"/> Unknown
	Type: <b>AnType (4725)</b>	<input type="checkbox"/> Fusiform <input type="checkbox"/> Saccular <input type="checkbox"/> Unknown
	Rupture: <b>AnRupt (4730)</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Contained rupture: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AnRuptCon (4735)</b>
Location of Maximum Diameter: <b>AnLoc (4740)</b>	<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: <b>DisTiming (4745)</b>	<input type="checkbox"/> Hyperacute (<24 hrs) <input type="checkbox"/> Acute (24hrs-<2weeks) <input type="checkbox"/> Subacute (2weeks -<90 days) <input type="checkbox"/> Chronic (90 days or more) <input type="checkbox"/> Acute on Chronic <input type="checkbox"/> Unknown
	Dissection onset date known <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) <b>DisOnsetDtKnown (4746)</b>	Date of onset: __/__/____ <b>DisOnsetDt (4747)</b>
	Primary tear location: <b>DisTearLoc (4750)</b>	<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
	Proximal Dissection Extent Known: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <b>DisRetExt (4760)</b>	
	(If Yes →)	Most Proximal Dissection Location: <b>DisRetLoc (4765)</b> <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
	Distal Dissection Extent Known: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <b>DistalExt (4775)</b>	
	(If Yes →)	Distal Dissection Extension Location: <b>DistalExtLoc (4780)</b> <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
	Stanford Classification: <input type="checkbox"/> Type A <input type="checkbox"/> Type B <input type="checkbox"/> Unknown <input type="checkbox"/> Other <b>StanfordClass (4781)</b>	
	Retrograde dissection caused by Aortic Stent Graft (Post TEVAR): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>DisPosTEVAR (4782)</b>	
	Patient within 30 days post TAVR <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <b>PtLess30PostTAVR (4783)</b>	
Patient within 30 days Post Other Cath Procedure <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <b>PtLess30PostOthCath (4784)</b>		
Malperfusion: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <b>DisMal (4785)</b>		
(If Yes →)	Malperfusion Type: (select all that apply): <b>DisMalType (4786)</b> <input type="checkbox"/> Coronary <input type="checkbox"/> Superior Mesenteric <input type="checkbox"/> Right Subclavia <input type="checkbox"/> Renal, left	

	<input type="checkbox"/> Right Common Carotid <input type="checkbox"/> Renal. right <input type="checkbox"/> Left Common Carotid <input type="checkbox"/> Iliofemoral <input type="checkbox"/> Left Subclavian <input type="checkbox"/> Spinal <input type="checkbox"/> Celiac	
	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 DisRupt (4840)	
	(If Yes →)	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)
(If Other →) PrimIndicOther (4851)	<input type="checkbox"/> Valvular Dysfunction <input type="checkbox"/> Stenosis/Obstruction <input type="checkbox"/> Intramural Hematoma <input type="checkbox"/> Coarctation <input type="checkbox"/> Endoleak <input type="checkbox"/> Infection <input type="checkbox"/> Injury related to Surgical Complication/Perforation <input type="checkbox"/> Trauma	
<b>Additional Anatomical Information</b>		
Root	Aorto-annular ectasia: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown RootAnnEctasia (4855)	
	Asymmetric Root Dilation: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown (If Yes →)    Dilation Location: <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Non-coronary RootDilaAsym (4870)    RoottDilaAsym (4875)	
	Sinus of Valsalva aneurysm: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown RootSinus (4878)	SV Aneurysm Location (select all that apply) : <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Non-coronary RootSinusLocMult (4880)
Arch Anomalies ArchAnom (4881)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓)	
	Arch Anomalies Type(s): select all that apply ArchAnomTy (4882)	
	<input type="checkbox"/> Arch Type Right <input type="checkbox"/> Aberrant Right Subclavian <input type="checkbox"/> Kommerell/Ductus Bulge <input type="checkbox"/> Variant vertebral origin <input type="checkbox"/> Aberrant Left Subclavian: <input type="checkbox"/> Bovine:	
	Patent internal mammary artery bypass graft: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A ArchPatIMA (4889)	
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)	
<b>Measurements (Largest Diameter)</b>		
Treated Zone with the Largest Diameter: TrtZnLrgDiam (4926)	<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	
Measurement: TrtZnLrgDiamMeas (4927)	_____ mm	
Method Obtained: TrtZnLrgDiamMeasMeth (4928)	<input type="checkbox"/> 3D or 4D Reconstruction <input type="checkbox"/> PreOp CT <input type="checkbox"/> PreOp MRI <input type="checkbox"/> PreOp Echo <input type="checkbox"/> Intra Operatively	
Proximal to Treated Zone(s) (Largest Diameter) Available: <input type="checkbox"/> Yes <input type="checkbox"/> No ProxTreatZoneAvail (4929)	(If Yes →)	Location: ProxTreatZoneAvailLoc (4930) <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
		Measurement: ProxTreatZoneAvailMeas (4931)    _____ mm
		Method Obtained: ProxTreatZoneAvailMeth (4932) <input type="checkbox"/> 3D or 4D Reconstruction <input type="checkbox"/> PreOp CT <input type="checkbox"/> PreOp MRI <input type="checkbox"/> PreOp Echo <input type="checkbox"/> Intra Operatively
Distal to Treated Zone(s) (Largest Diameter) Available: <input type="checkbox"/> Yes <input type="checkbox"/> No DistTreatZoneAvail (4933)	(If Yes →)	Location: DistTreatZoneAvailLoc (4934) <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
		Measurement: DistTreatZoneAvailMeas (4935)    _____ mm
		Method Obtained: DistTreatZoneAvailMeth (4936) <input type="checkbox"/> 3D or 4D Reconstruction <input type="checkbox"/> PreOp CT <input type="checkbox"/> PreOp MRI <input type="checkbox"/> PreOp Echo <input type="checkbox"/> Intra Operatively

**Intervention**

(If Aorta Procedure Performed = Yes ↓)

Aortic Valve or Root Procedure Performed:  Yes, planned  Yes, unplanned due to surgical complication  
**VSAVAo (4951)**  Yes, unplanned due to unsuspected disease or anatomy  No  
 (If Yes ↓)

Procedure Performed:  
**VSAVPrAo (4952)**

Replacement (If Replacement ↓)

Transcatheter Valve Replacement:  Yes  No  
**VSTCVAo (4953)**

(If Yes →) Approach:  
**VSTCVRAo (4954)**  
 Transapical  Transaxillary  Transfemoral  Transaortic  Subclavian  
 Other  Transiliac  Transeptal  Transcarotid.  Transcaval

Surgical valve Replacement:  Yes  No  
**VSAVSurgRepAo (4955)**

(If Yes →) Device type:  Mechanical  Bioprosthetic  Surgeon fashioned pericardium (Ozaki)  Other  
**VSAVSurgTypeAo (4956)**  
 (If Bioprosthetic →) Valve type:  Stented  Stentless sub coronary valve only  Sutureless/rapid deployment  
**VSAVSurgBioTAo (4957)**

Repair/Reconstruction (If Repair/Reconstruction ↓)

Repair Type (Select all that apply)  
**AVProcRepTypeAo (4958)**  
 Commissural suture annuloplasty  Nodular Release  Leaflet resection suture  
 Leaflet plication  Leaflet Shaving  Leaflet pericardial patch  
 Leaflet commissural resuspension suture  Leaflet debridement  Division of fused leaflet raphe  
 Leaflet free edge reinforcement (PTFE)  Ring annuloplasty external ring  Ring annuloplasty internal ring  
 External Suture Annuloplasty  Pannus/Thrombus removal (native valve)

Surgical Prosthetic Valve Intervention: (Not Explant of Valve) : (If Surgical Prosthetic Valve Intervention, Select All That Apply ↓)  
**AVSurgProsthValIntAo (4959)**

Type of Intervention:  Repair of periprosthetic leak  Removal of pannus  Removal of clot  Other

Aortic annular enlargement  Yes  No  
**AnlRenlAo (4960)**

(If Yes →) Technique:  Nicks-Nunez  Manougian  Konno  Other  Unknown  
**AnlRenlTechAo (4961)**

Replacement of non-coronary sinus (Modified Wheat/Modified Yacoub)  Yes  No  
**AVReplNonCorSinAo (4962)**

Root Procedure:  Yes  No (If Yes ↓)  
**VSAVRoot (4963)**

Root Replacement with coronary Ostial Reimplantation  Yes  No  
**VSAVRootOReimp (4964)**

(If Yes →)  Composite Valve Conduit  Valve Sparing Root  
**VSAVRootOReimpType (4965)**

(If Composite Valve Conduit →)  Mechanical  Bioprosthetic  Homograft Root Replacement  
 Autograft with Native Pulmonary Valve (Ross)  
**VSAVRootOReimpTy (4966)**

(If Bioprosthetic →)  Stented Valve Conduit  Stentless Valve Conduit  
 Stentless Biologic Full Root  
**VSAVRepBioTy (4967)**

(If Valve Sparing Root →)  Valve sparing root reimplantation (David)  
 Valve sparing root remodeling (Yacoub)  
 Valve sparing root reconstruction (Florida Sleeve)  
**VSAVSparRtOp (4968)**

Coronary Reimplantation:  No  
 Direct to Root Prosthesis (Button)  
 With Vein Graft Extension (SVG Cabrol)  
 With Dacron Graft Extension (Classic Cabrol)  
**VSAVCorReimp (4969)**

Major root reconstruction/ debridement without coronary ostial reimplantation  
**VSAVRootRecon (4970)**  Yes  No

(If AortProc = Yes ↓)

Surgical Ascending/Arch Procedure  Yes  No (If Yes ↓)  
**ArchProc (4975)**

Proximal Location:  STJ-midascending  Midascending to distal ascending  Zone 1  Zone 2  Zone 3

<b>ArchProxLoc (4976)</b> Distal Technique: <input type="checkbox"/> Open/Unclamped <input type="checkbox"/> Clamped <b>ArchDisTech (4980)</b> 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 <b>ArchDiscSite (4985)</b> Distal Extention: <input type="checkbox"/> Elephant trunk <input type="checkbox"/> Frozen Elephant trunk <input type="checkbox"/> No <b>ArchDisExt (4990)</b> Arch Branch Reimplantation: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓ - select all that apply) <b>ArchBranReimp (4995)</b>	
<b>Arch Branch Location:</b> <b>ArchBranReimpLoc (4996)</b>	<input type="checkbox"/> Innominate <input type="checkbox"/> Right Subclavian <input type="checkbox"/> Right Common Carotid <input type="checkbox"/> Left Common Carotid <input type="checkbox"/> Left Subclavian <input type="checkbox"/> Left Vertebral <input type="checkbox"/> Other
Open Surgical Descending Thoracic Aorta or Thoracoabdominal Procedure (If Yes ↓): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>DescAortaProc (5015)</b>	
<b>Proximal Location:</b> <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 <b>DescAortaLoc (5020)</b> <input type="checkbox"/> Zone 6 <input type="checkbox"/> Zone 7 <input type="checkbox"/> Zone 8 <input type="checkbox"/> Zone 9	
<b>Intercostal Reimplantation:</b> <b>AortaInterReimp (5030)</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Distal Location:</b> <b>AortaDisZone (5035)</b> <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	
<b>Visceral vessel intervention:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) <b>AortaVisceral (5045)</b>	
Celiac: <input type="checkbox"/> Reimplantation <input type="checkbox"/> Branch Graft <input type="checkbox"/> None <b>AortaViscCel (5050)</b>	
Superior mesenteric: <input type="checkbox"/> Reimplantation <input type="checkbox"/> Branch Graft <input type="checkbox"/> None <b>AortaViscSup (5055)</b>	
Right Renal: <input type="checkbox"/> Reimplantation <input type="checkbox"/> Branch Graft <input type="checkbox"/> None <b>AortaViscRenR (5060)</b>	
Left Renal: <input type="checkbox"/> Reimplantation <input type="checkbox"/> Branch Graft <input type="checkbox"/> None <b>AortaViscRenL (5065)</b>	
Endovascular Procedure(s) : <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) <b>EndovasProc (5066)</b>	
<b>Access:</b> <input type="checkbox"/> Femoral <input type="checkbox"/> Iliac <input type="checkbox"/> Abdominal Aorta <input type="checkbox"/> Lt. Subclavian/Axila <input type="checkbox"/> Rt. Subclavian/Axila <input type="checkbox"/> Ascending Aorta <b>EndovasAccess (5067)</b> <input type="checkbox"/> Carotid <input type="checkbox"/> LV Apex	
<b>Percutaneous Access:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>EndovasPercAcc (5068)</b>	
<b>Proximal landing zone:</b> <input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending <b>EndoProxZone (5070)</b> <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	
<b>Distal landing zone:</b> <input type="checkbox"/> Below STJ <input type="checkbox"/> STJ-midascending <input type="checkbox"/> Midascending to distal ascending <b>EndoDistalZone (5080)</b> <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	
<b>Ascending TEVAR :</b> <input type="checkbox"/> Dedicated IDE <input type="checkbox"/> Off Label Stent <input type="checkbox"/> No <b>EndovasTEVAR (5095)</b>	
<b>Arch Vessel management</b>	
<b>Innominate:</b> <input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <b>Innominate (5100)</b> <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated <input type="checkbox"/> No Flow Restored	
(If Extra-anatomic bypass (select all that apply)→)	<b>Location:</b> <b>InExtraAnatBypLoc (5101)</b> <input type="checkbox"/> Aorta-Innominate <input type="checkbox"/> Aorta-right carotid <input type="checkbox"/> Aorta- right subclavian <input type="checkbox"/> Right Carotid- Right subclavian <input type="checkbox"/> Other
<b>Left Carotid:</b> <input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <b>LeftCarotid (5140)</b> <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated <input type="checkbox"/> No Flow Restored	
(If Extra-anatomic bypass (select all that apply)→)	<b>Location:</b> <b>LeftCarotidExtraAnatByp (5141)</b> <input type="checkbox"/> Aorta- left carotid <input type="checkbox"/> Innominate- left carotid <input type="checkbox"/> Right carotid- Left carotid <input type="checkbox"/> Other
<b>Left Subclavian:</b> <input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> Endovascular Parallel Graft <b>LeftSubclavian (5180)</b> <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> Fenestrated <input type="checkbox"/> No Flow Restored	
(If Extra-anatomic bypass (select all that apply)→)	<b>Location:</b> <b>LeftSubclavExtraAnatByp (5181)</b> <input type="checkbox"/> Aorta- left subclavian <input type="checkbox"/> Left carotid- left subclavian <input type="checkbox"/> Other
<b>Visceral Vessel management</b>	
<b>Celiac:</b> <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 <b>Celiac (5220)</b> <input type="checkbox"/> No Flow Restored	
(If Extra-anatomic bypass (select all that apply)→)	<b>Location:</b> <b>CeliacExtraAnatByp (5221)</b>

		<input type="checkbox"/> Aorta- celiac	<input type="checkbox"/> Iliac-celiac	<input type="checkbox"/> Other
Superior mesenteric: SupMesenteric (5270)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> No Flow Restored	<input type="checkbox"/> Endovascular Parallel Graft	<input type="checkbox"/> Extra-anatomic Bypass	<input type="checkbox"/> Fenestrated
	(If Extra-anatomic bypass (select all that apply) →)	Location: SupMesExtraAnatByp (5271)		
		<input type="checkbox"/> Aorta- superior mesenteric	<input type="checkbox"/> Iliac- superior mesenteric	<input type="checkbox"/> Other
Right renal: RightRenal (5320)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> No Flow Restored	<input type="checkbox"/> Endovascular Parallel Graft	<input type="checkbox"/> Extra-anatomic Bypass	<input type="checkbox"/> Fenestrated
	(If Extra-anatomic bypass (select all that apply) →)	Location: RightRenalExtraAnatByp (5321)		
		<input type="checkbox"/> Aorta- right renal	<input type="checkbox"/> Iliac- right renal	<input type="checkbox"/> Other
Left renal: LeftRenal (5360)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Endovascular Branch Graft <input type="checkbox"/> No Flow Restored	<input type="checkbox"/> Endovascular Parallel Graft	<input type="checkbox"/> Extra-anatomic Bypass	<input type="checkbox"/> Fenestrated
	(If Extra-anatomic bypass (select all that apply) →)	Location: LeftRenalExtraAnatByp (5361)		
		<input type="checkbox"/> Aorta- left renal	<input type="checkbox"/> Iliac – left renal	<input type="checkbox"/> Other
Right Iliac: RightIliac (5378)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Bifurcated Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> No Flow Restored			
	(If Extra-anatomic bypass (select all that apply) →)	Location: RightIliacExtraAnatByp (5379)		
		<input type="checkbox"/> Femoral- Femoral	<input type="checkbox"/> Other	
Left Iliac: LeftIliac (5382)	<input type="checkbox"/> Native Flow <input type="checkbox"/> Bifurcated Graft <input type="checkbox"/> Extra-anatomic Bypass <input type="checkbox"/> No Flow Restored			
	(If Extra-anatomic bypass (select all that apply) →)	Location: LeftIliacExtraAnatByp (5383)		
		<input type="checkbox"/> Femoral- Femoral	<input type="checkbox"/> Other	
Internal Iliac Preserved: IntIliacPres (5386)	<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 (5387)	<input type="checkbox"/> Yes <input type="checkbox"/> No			
	(If Yes (select all that apply) →)	Location: OthVisVesExtraAnatBypLoc (5388)		
		<input type="checkbox"/> Aorta-other	<input type="checkbox"/> Iliac-other	<input type="checkbox"/> Other
Planned Staged Hybrid: PlanStagHybrid (5400)	<input type="checkbox"/> Yes <input type="checkbox"/> No			
<b>Other Endovascular Procedural Information</b>				
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 →)	Location: 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		
<b>Additional Procedural Information</b>				
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: MotorEvoke (5425)	<input type="checkbox"/> Yes <input type="checkbox"/> No	(If Yes →)	Documented MEP abnormality <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
			MotorEvokeAb (5426)	
IntraOp Somatosensory Evoked Potential: SomatEvoke (5430)	<input type="checkbox"/> Yes <input type="checkbox"/> No	(If Yes →)	Documented SEP abnormality <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
			SomatEvokeAb (5431)	
IntraOp EEG: IntraOpEEG (5432)	<input type="checkbox"/> Yes <input type="checkbox"/> No	(If Yes →)	Documented EEG abnormality <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
			IntraOpEEGAb (5433)	
IntraOp Intravascular Ultrasound(IVUS): IntraOpIVUS (5434)	<input type="checkbox"/> Yes <input type="checkbox"/> No			
IntraOp Transcutaneous Doppler: TransDoppler (5435)	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Intraoperative Angiogram: IntraOpAng (5436)	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →)	Volume of contrast: _____ ml IntraOpAngVol (5437)	Fluoroscopy time: _____ min IntraOpAngFitm (5438)	

Endovascular Balloon Fenestration of the Dissection Flap:  PreOp  IntraOp  PostOp  N/A

EndoBalFenDisFlap (5439)

**Devices**

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

ADevIns (5440)

Aortic Valve or Aortic Valve Composite Graft Implanted  Yes  No (If Yes↓)

AVAVCompGraftImplAo (5441)

Implant Model Number: \_\_\_\_\_

AVAVCompGrImplModelAo (5442)

Implant Size: \_\_\_\_\_

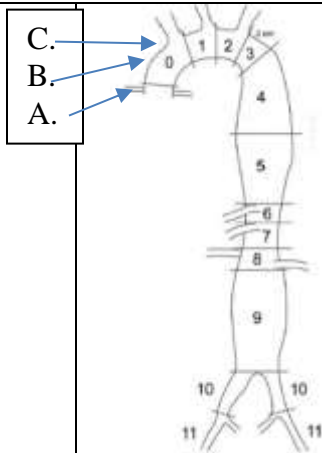
AVAVCompGrImplSizeAo (5443)

Unique Device identifier (UDI): \_\_\_\_\_

AVAVCompGrImplUDIAo (5444)

**Aorta Devices**

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 (infrarenal abdominal aorta)
  - M. Zone 10 (common iliac)
  - N. Zone 11 (external iliacs)
- (Refer to Data Specifications for Harvest Codes)

**For devices other than aortic valves and aortic valve composite grafts:**

<b>Implant Method:</b>	1=Open Surgical 2= Endovascular			
<b>Outcome:</b>	1= Unsuccessfully implanted/maldeployed 2= Implanted/deployed and removed 3= Successfully implanted/deployed			
<b>Model Number:</b>	Enter device model number			
<b>UDI:</b>	Enter unique device identifier (not serial number)			
Location (Letter)	Implant Method	Outcome	Model Number	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)
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**M.3. Congenital Defect Repair (other than-ASD – Secundum, PFO, or Unicuspid, Bicuspid or Quadricuspid valve)**

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

Congenital Procedures: Select up to three most significant: (refer to “Congenital Diagnoses/Procedures List” document)  
 Procedure 1: \_\_\_\_\_ Procedure 2: \_\_\_\_\_ (If not No Other Congenital→) Procedure 3: \_\_\_\_\_  
 OCarCongProc1 (6515) OCarCongProc2 (6520) OCarCongProc3 (6525)

**N. Other Non-Cardiac Procedures (If Other Non-Cardiac Procedure = Yes ↓)**

Carotid Endarterectomy: ONCCarEn (6530)  Yes, planned  Yes, unplanned due to surgical complication  
 Yes, unplanned due to unsuspected disease or anatomy  No

Other Vascular: ONCOVasc (6535)  Yes, planned  Yes, unplanned due to surgical complication  
 Yes, unplanned due to unsuspected disease or anatomy  No

Other Thoracic: ONCOTHor (6540)  Yes, planned  Yes, unplanned due to surgical complication  
 Yes, unplanned due to unsuspected disease or anatomy  No

Other: ONCOther (6545)  Yes, planned  Yes, unplanned due to surgical complication  
 Yes, unplanned due to unsuspected disease or anatomy  No

**O. Post-Operative**

Patient expired in OR.  Yes  No (If No ↓)  
 ExpiredInOR (6546)

Peak Postoperative Creatinine Level within 48 hours of OR Exit: PeakPostCreat48Hrs (6550)	Peak Postoperative Creatinine Level prior to discharge: PostCreat (6555)	Discharge Hemoglobin: _____ PostopHemoglobin (6556)	Discharge Hematocrit: _____ PostopHct (6557)
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Blood Products Used Postoperatively:  Yes  No (If Yes ↓)  
 BldProd (6560)

Red Blood Cell Units: _____ BdRBCU (6565)	Fresh Frozen Plasma/Plasma Units: _____ BdFFPU (6570)	Cryoprecipitate Units: _____ BdCryoU (6575)	Platelet Dose Pack: _____ BdPlatDosePk (6581)
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Extubated in OR:  Yes  No  N/A (not intubated)  
 ExtubOR (6585)

(If “No” or “N/A”→) Initial Extubation Date and Time: \_\_\_\_/\_\_\_\_/\_\_\_\_ : \_\_\_\_ (mm/dd/yyyy hh:mm - 24 hr clock)  
 (for N/A leave this field blank)  
 ExtubateDT (6586)++

Total post-op initial vent hour \_\_\_\_\_ (system calculation)  
 TotalPOInitVentHr (6587)

Re-intubated /or intubated Post Op During Hospital Stay:  Yes  No (If yes →) Additional Hours Ventilated: ++ \_\_\_\_\_  
 PostopIntub (6591) VentHrsA (6595)

Total post-operative ventilation hours: ++ \_\_\_\_\_ (System Calculation)  
 VentHrsTot (6600)

ICU Visit:  Yes  No (If Yes →) Initial ICU Hours: \_\_\_\_\_  
 ICUVisit (6605) ICUInHrs (6610)

Readmission to ICU:  Yes  No (If Yes →) Additional ICU Hours: \_\_\_\_\_  
 ICUReadm (6615) ICUAdHrs (6620)

Post Op Echo Performed to evaluate valve(s):  Yes  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 <input type="checkbox"/> N/A
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 <input type="checkbox"/> N/A

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 →) <span style="margin-left: 100px;">Post Op Ejection Fraction: _____ (%)</span> POpEFD (6650) <span style="margin-left: 100px;">POpEF (6655)</span>

**P. Postoperative Events**  
(If Expired in OR = No↓)

Surgical Site Complications during postoperative period up to 30 days or during initial hospitalization:  
SurSInf (6690)  
 Yes, Infectious  Yes, Non-Infectious  Yes, Both  No

(If Yes, Infectious or Yes, Both →)	Superficial Sternal Wound: CSternalSupInf (6695)	<input type="checkbox"/> Yes, within 30 days of procedure <input type="checkbox"/> Yes, >30 days after procedure but during hospitalization for surgery <input type="checkbox"/> No
	Deep Sternal: ++ DeepSternInf (6700)	<input type="checkbox"/> Yes, within 30 days of procedure <input type="checkbox"/> Yes, greater than 30 days but during initial hospitalization <input type="checkbox"/> No
		(If either Yes value →) Diagnosis Date: ___/___/___ (mm/dd/yyyy) DeepSternInfDt (6705)
	Thoracotomy (within 30 days or initial hospitalization): <input type="checkbox"/> Yes <input type="checkbox"/> No CIThor30 (6711)	
Conduit Harvest (within 30 days or initial hospitalization): <input type="checkbox"/> Yes <input type="checkbox"/> No ConduitHarv (6715)		
Cannulation Site (within 30 days or initial hospitalization): <input type="checkbox"/> Yes <input type="checkbox"/> No CanSite (6720)		

(If Yes, Non-Infectious or Yes, Both →)	Non-Infective Surgical Wound Dehiscence (includes non-infective sterile wound): <input type="checkbox"/> Sternal Superficial <input type="checkbox"/> Deep Sternal NonInfSurgWndDeh (6748)
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Is there evidence that the patient had a deep sternal wound infection within 90 days of the procedure:  Yes  No  Unknown  
DeepSternInf90 (6749)

Other In Hospital Postoperative Event Occurred:  Yes  No (If Yes ↓)  
Complics (6750)

**Operative**

ReOp for Bleeding /Tamponade: ++ <input type="checkbox"/> Yes <input type="checkbox"/> No COPReBld (6755)	(If Yes →) Bleed Timing: <input type="checkbox"/> Acute <input type="checkbox"/> Late COPReBldTim (6760)
--	---

ReOp for Valvular Dysfunction: ++  Yes, surgical  Yes, transcatheter  No  
COPReVlv (6765)

Unplanned Coronary Artery Intervention: ++  Yes  No  
CReintMI (6771)

(If Yes →) Vessel: <input type="checkbox"/> Native coronary <input type="checkbox"/> Graft <input type="checkbox"/> Both CReintMIVes (6772)	Intervention Type: <input type="checkbox"/> Surgery <input type="checkbox"/> PCI <input type="checkbox"/> Both CReintMIIntTy (6773)
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Aortic Reintervention: ++ <input type="checkbox"/> Yes <input type="checkbox"/> No CAortReint (6774)	(If yes →) Type: <input type="checkbox"/> Open <input type="checkbox"/> Endovascular CAortReintTy (6775)
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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  
COPPlndDelay (6785)

**Infection**

Sepsis:  Yes  No  
CSepsis (6800)

**Neurologic, Central**

Postoperative Stroke: ++  Yes  No  
CNStrokP (6810)

Encephalopathy:  Yes  No  
CNEnceph (6821)

**Neurologic, Peripheral**

Lower Extremity Paralysis >24 Hours: Yes  No  
CNParal (6825)

Paresis >24 hours:  Yes  No  
CNParesis (6829)

Recurrent Laryngeal Nerve Injury:  Yes  No  
RecLarynNrvInj (6833)

**Pulmonary**

Prolonged Ventilation: <input type="checkbox"/> Yes <input type="checkbox"/> No (OR exit time until initial extubation, plus any additional reintubation hours) CPVntLng (6835)		
(If Yes →)	Tracheostomy Required after OR Exit <input type="checkbox"/> Yes <input type="checkbox"/> No CPVntLngTrachReq (6838)	
Pneumonia: <input type="checkbox"/> Yes <input type="checkbox"/> No CPPneum (6840)		
Pulmonary Thromboembolism: <input type="checkbox"/> Yes <input type="checkbox"/> No PulmEmb (6850)		
Pleural Effusion Requiring Drainage: <input type="checkbox"/> Yes <input type="checkbox"/> No CPIEff (6860)		
Pneumothorax Requiring Intervention: <input type="checkbox"/> Yes <input type="checkbox"/> No PostOpPneumo (6865)		
<b>Renal</b>		
Renal Failure: ++ <input type="checkbox"/> Yes <input type="checkbox"/> No CRenFail (6870)		
(If Yes →)	Dialysis (Newly Required): <input type="checkbox"/> Yes <input type="checkbox"/> No CRenDial (6875)	(If Yes →) Required after Hospital Discharge: <input type="checkbox"/> Yes <input type="checkbox"/> No DialDur (6880)
<b>Vascular</b>		
Iliac/Femoral Dissection: <input type="checkbox"/> Yes <input type="checkbox"/> No CVallFem (6888)		
Acute Limb Ischemia: <input type="checkbox"/> Yes <input type="checkbox"/> No CValblsc (6889)		
Deep Venous Thrombosis: <input type="checkbox"/> Yes <input type="checkbox"/> No DVT (6891)		
<b>Mechanical assist device related complication</b> : <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) CMAD (6892)		
	Type of Complication: (select all that apply) CMADEvents (6893) <input type="checkbox"/> Cannula/Insertion site issue <input type="checkbox"/> Hemorrhagic <input type="checkbox"/> Thrombotic/Embolic <input type="checkbox"/> Hemolytic <input type="checkbox"/> Infection <input type="checkbox"/> Other mechanical assist device related complication	
<b>Other</b>		
Rhythm Disturbance Requiring Permanent Pacemaker: <input type="checkbox"/> Yes <input type="checkbox"/> No NewRhythmDis (6901)		
Cardiac Arrest: <input type="checkbox"/> Yes <input type="checkbox"/> No COTarrst (6905)		
<b>Aortic Complication</b> <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes ↓) AorticComp (6907)		
	Aortic Dissection: <input type="checkbox"/> Yes <input type="checkbox"/> No CVAoDis (6909)	
	Post Op Aortic Endoleak: <input type="checkbox"/> Yes <input type="checkbox"/> No COTaortEndo (6921)	(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 COTaortEndoTy (6922)
	Aortic Side Branch malperfusion: <input type="checkbox"/> Yes <input type="checkbox"/> No COTaortSide (6926)	
	Aortic stent graft induced entry tear: <input type="checkbox"/> Yes <input type="checkbox"/> No COTaortTear (6927)	
Anticoagulant Bleeding Event: <input type="checkbox"/> Yes <input type="checkbox"/> No COTCoag (6929)		
(If Yes →)	<input type="checkbox"/> Intracerebral <input type="checkbox"/> Subdural <input type="checkbox"/> Gastrointestinal AnticoagBleedEvtType (6930)	
Heparin Induced Thrombocytopenia (HIT) <input type="checkbox"/> Yes <input type="checkbox"/> No HIT (6931)	(If Yes →) Heparin Induced Thrombocytopenia Thrombosis (HITT) <input type="checkbox"/> Yes <input type="checkbox"/> No HITT (6932)	
Pericardiocentesis: <input type="checkbox"/> Yes <input type="checkbox"/> No COTamp (6933)		
Gastro-Intestinal Event: <input type="checkbox"/> Yes <input type="checkbox"/> No COTGI (6935)	<input type="checkbox"/> Ischemic Bowel <input type="checkbox"/> Gastrointestinal Bleed <input type="checkbox"/> Pancreatitis <input type="checkbox"/> Cholecystitis <input type="checkbox"/> Liver Dysfunction/Liver Failure <input type="checkbox"/> Ileus <input type="checkbox"/> Other (If Yes, select all that apply →) GIEventType (6936)	
Atrial Fibrillation: <input type="checkbox"/> Yes <input type="checkbox"/> No COTAFib (6945)		

Q. Discharge / Mortality	
Status at 30 days After Surgery (either discharged or in-hospital): ++ <input type="checkbox"/> Alive <input type="checkbox"/> Dead <input type="checkbox"/> Unknown Mt30Stat (7001)	
Did the patient transfer to another acute care hospital after this procedure during same stay: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Date Transferred: ___/___/____ DischMtPtTrnfAcuteHosp (7003) <span style="float: right;">DischMtPtTrnfAcuteHospDt (7004)</span>	
Is the patient still in the Acute Care Hospital Setting: <input type="checkbox"/> Yes <input type="checkbox"/> No (If No ↓) DischMtPtAcuteHospStill (7005)	
Hospital Discharge Date ___/___/____ (mm/dd/yyyy) DischDt (7006)	
Status at Hospital Discharge++ <input type="checkbox"/> Discharged Alive, last known status alive (other than Hospice) DischMortStat (7007) <input type="checkbox"/> <u>Discharged Alive, died after discharge</u> <input type="checkbox"/> Discharged to Hospice <input type="checkbox"/> Died in hospital	
(If Discharge Alive, last known status alive OR Discharged Alive, died after discharge →)	Discharge Location: <input type="checkbox"/> Home <input type="checkbox"/> Extended Care/Transitional Care Unit/Rehab <input type="checkbox"/> Nursing Home <input type="checkbox"/> Left AMA <input type="checkbox"/> Other DisLoctn (7010)
(If Discharge Location = Extended Care/Transitional Care Unit/Rehab→)	<input type="checkbox"/> Acute/Short-term Rehab <input type="checkbox"/> Long-term Rehab <input type="checkbox"/> Unknown DisLExtCareTCURehabTy (7011)
(If Discharge Location is NOT Left AMA→)	Cardiac Rehabilitation Referral: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable CardRef (7015)
	Substance Use Screening and Counseling Performed (NQF 2597): <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable SubsUseScrnCounPerf (7016)
<b>Medications Prescribed at Discharge</b>	
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	Direct Oral Anticoagulant DCDirOralAnticoag (7081) <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
	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 (see Training Manual)	
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 Status at Hospital Discharge is 'Discharged Alive, Died after discharge' OR 'Discharged to Hospice' →)	<b>Mortality - Date++</b> ___/___/____ (mm/dd/yyyy) MtDate (7121)
(If Status at Hospital Discharge is 'discharged alive, died after discharge' OR 'Discharged to Hospice' →)	<b>Operative Mortality: ++</b> <input type="checkbox"/> Yes <input type="checkbox"/> No MtOpD (7124)
(If Status at Hospital Discharge is 'Discharged to Hospice' OR 'Discharged Alive, died after discharge' →)	Post Discharge death location: <input type="checkbox"/> Home <input type="checkbox"/> Extended Care Facility <input type="checkbox"/> Hospice PostDisDthLoc (7125) <input type="checkbox"/> Acute Rehabilitation <input type="checkbox"/> Hospital during readmission <input type="checkbox"/> Other <input type="checkbox"/> Unknown
(If Died in Hospital→)	Primary Cause of Death (select only one) MtCause (7126) <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

R. Readmission
(If Status at Hospital Discharge = Discharged alive, last know status = alive or Discharged alive, died after discharge ↓) Readmit : ++ <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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                                  |
| <input type="checkbox"/> GI issue                                       | <input type="checkbox"/> Vascular Complication, acute                       |
| <input type="checkbox"/> Infection, Conduit Harvest Site                | <input type="checkbox"/> Wound , other (drainage, cellulitis, )             |
| <input type="checkbox"/> Infection, Deep Sternum / Mediastinitis        | <input type="checkbox"/> Wound, Sternal dehiscence not related to infection |
| <input type="checkbox"/> Mental status changes                          | <input type="checkbox"/> Other – Related Readmission                        |
| <input type="checkbox"/> Myocardial Infarction                          | <input type="checkbox"/> Other – Nonrelated Readmission                     |
| <input type="checkbox"/> PE   | <input type="checkbox"/> Other – Planned Readmission                        |
|   | <input type="checkbox"/> Unknown  |

Readmit Primary Procedure:

ReadmPro (7165)

- |   |  |
|---|--|
| <input type="checkbox"/> No Procedure Performed                   | <input type="checkbox"/> OR for Vascular Procedure           |
| <input type="checkbox"/> Cath lab for Valve Intervention          | <input type="checkbox"/> OR for Aorta Intervention           |
| <input type="checkbox"/> Cath lab for Coronary Intervention (PCI) | <input type="checkbox"/> Pacemaker Insertion / AICD          |
| <input type="checkbox"/> Dialysis                                 | <input type="checkbox"/> Pericardiotomy / Pericardiocentesis |
| <input type="checkbox"/> OR for Bleeding                          | <input type="checkbox"/> Planned noncardiac procedure        |
| <input type="checkbox"/> OR for Coronary Artery Intervention      | <input type="checkbox"/> Thoracentesis/ Chest tube insertion |
| <input type="checkbox"/> OR for Sternal Debridement / Muscle Flap | <input type="checkbox"/> Wound vac                           |
| <input type="checkbox"/> OR for Valve Intervention                | <input type="checkbox"/> Other Procedure                     |
|   | <input type="checkbox"/> 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)

Organization participates in the Adult Anesthesia Section: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>OrgPartAdAnesthSect (7300)</b>			
Primary Anesthesiologist Name: <b>PrimAnesName (7310)</b>		Primary Anesthesiologist National Provider Number: <b>PrimAnesNPI (7315)</b>	
Anesthesiology Care Team Model: <b>AnesCareTeamMod (7320)</b>			
<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		(If Attending anesthesiologist medically directing CRNA ↓) Ratio: <input type="checkbox"/> 1:1 <input type="checkbox"/> 1:2 <input type="checkbox"/> 1:3 <input type="checkbox"/> 1:4 <input type="checkbox"/> 1:5 <input type="checkbox"/> N/A <b>AnesCareTeamModCRNARatio (7321)</b>	
<input type="checkbox"/> Attending anesthesiologist medically directing AA  <input type="checkbox"/> Surgeon medically directing CRNA <input type="checkbox"/> CRNA practicing independently		(If Attending anesthesiologist medically directing AA ↓) Ratio: <input type="checkbox"/> 1:1 <input type="checkbox"/> 1:2 <input type="checkbox"/> 1:3 <input type="checkbox"/> 1:4 <input type="checkbox"/> 1:5 <input type="checkbox"/> N/A <b>AnesCareTeamModAARatio (7322)</b>	
Pain Score Baseline: <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 <b>PainScorePre (7325)</b>			
Pre Induction Systolic BP: _____ <b>PreAnesthBPSys (7326)</b>		Pre Induction Diastolic BP: _____ <b>PreAnesthBPDia (7327)</b>	
Pre Induction Heart Rate: _____ <b>PreAnesthHR (7328)</b>		Pulmonary Artery Catheter Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PACIntra (7329)</b>	
Algorithm used to Guide Transfusion: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>TransfAlg (7330)</b>			
<b>Anticoagulation Prior to CPB</b>			
Heparin prior to CPB <input type="checkbox"/> Yes <input type="checkbox"/> No <b>HepPriorCPB (7335)</b>		<input type="checkbox"/> Heparin titration based on activated clotting time (ACT) <input type="checkbox"/> Heparin titration based on heparin concentration (Hepcon) <input type="checkbox"/> Other method	
(If Yes →)		Heparin Dose: _____ units <b>TotHep (7340)</b>	
		Heparin Management: _____ <b>HepMgmt (7345)</b>	
Fresh Frozen Plasma prior to CPB <input type="checkbox"/> Yes <input type="checkbox"/> No <b>FFPPriorCPB (7346)</b>		(If yes →) Total Dose: _____ units <b>FFPPriorCPBUnits (7347)</b>	
Antithrombin III prior to CPB <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AntithromPriorCPB (7348)</b>		(If yes →) Total Dose: _____ International Unit/mL <b>AntithromDose (7351)</b>	
Bivalirudin <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AnticoagPriorCPBBival (7352)</b>			
Argatroban <input type="checkbox"/> Yes <input type="checkbox"/> No <b>AnticoagPriorCPBArg (7353)</b>			
Viscoelastic Testing Used Intraop: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>IntraViscoTest (7360)</b>			
Volatile Agent Used: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>VolAgentUsed (7365)</b>			
(If Yes →)		<input type="checkbox"/> Isoflurane <input type="checkbox"/> Desflurane <input type="checkbox"/> Sevoflurane <input type="checkbox"/> Other	
Volatile Agent(s) used: <b>VolAgentUsedTy (7370)</b> (select all that apply→)			
Volatile Agent(s) timing <b>VolAgentTiming (7377)</b> (select all that apply→)		<input type="checkbox"/> Pre CPB <input type="checkbox"/> During CPB <input type="checkbox"/> Post CPB <input type="checkbox"/> Maintenance (if no CPB)	
Intraop Midazolam: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>IntraopMidaz (7398)</b>		(If Yes→) Dose _____ mgs <b>MidazIntra (7400)</b>	
Intraop Fentanyl: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>IntraFent (7402)</b>		(If Yes→) Dose _____ mcgs <b>IntraFentDose (7404)</b>	
Intraop Sufentanil: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>IntraopSufent (7406)</b>		(If Yes→) Dose _____ mcgs <b>IntraopSufentDose (7408)</b>	
Intraop Remifentanyl: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>IntraopRemifent (7410)</b>		(If Yes→) Dose _____ mcgs <b>IntraopRemifentDose (7412)</b>	
Multimodal Analgesics (OR Entry to 24h post OR Exit) <input type="checkbox"/> Yes <input type="checkbox"/> No <b>MultimodAnalgesGiven (7413)</b>		(If Yes, select all that apply→) <input type="checkbox"/> Ketamine (IV) <input type="checkbox"/> Local/Regional Anesthesia <input type="checkbox"/> Lidocaine Infusion (not bolus) <input type="checkbox"/> Acetaminophen (IV or PO) <input type="checkbox"/> Cox-2 inhibitor/non-steroidal anti-inflammatory (PO) <input type="checkbox"/> Dexmedetomidine (IV) <b>MultimodAnalges (7414)</b>	
Core Temperature Source in OR: <b>CoreTempSrc (7435)</b>			Core Temp Max during rewarming: _____ °C <b>CoreTempMax (7440)</b>
<input type="checkbox"/> Esophageal <input type="checkbox"/> Tympanic <input type="checkbox"/> Oxygenator arterial outlet <input type="checkbox"/> Bladder <input type="checkbox"/> Rectal <input type="checkbox"/> blood (CPB Arterial Blood) <input type="checkbox"/> Nasopharyngeal <input type="checkbox"/> CPB venous return <input type="checkbox"/> Other <input type="checkbox"/> PA Catheter <input type="checkbox"/> Jugular-Venous <input type="checkbox"/> Unknown Thermistor			
Crystalloid given by Anesthesia <input type="checkbox"/> Yes <input type="checkbox"/> No <b>CrystGivenAnesth (7448)</b>		(If Yes→) Anesth. Total Crystalloid: _____ mL <b>TotCrystAnesth (7450)</b>	

		Type: <input type="checkbox"/> 0.9 Sodium Chloride <input type="checkbox"/> Normosol <input type="checkbox"/> Ringer's Lactate <input type="checkbox"/> Plasmalyte CrystGivenAnestTy (7451)	
Was 5% Albumin given by Anesthesia <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) AlbAnesth5Pct (7452)		Anesthesiology Total 5% Albumin _____ mL AnesthTot5PctAlb (7453)	
Was 25% Albumin give by Anesthesia <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) AlbAnesth25Pct (7454)		Anesthesiology Total 25% Albumin _____ mL AnesthTot25PctAlb (7455)	
Autologous <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) Normovolemic Hemodilution (ANH) ANH (7456)		ANH Volume: _____ mL ANHVOL (7457)	
Intraop Inhaled Vasodilator: <input type="checkbox"/> Yes <input type="checkbox"/> No InhalVaso (7462)		Intraop IV Vasodilators Used: <input type="checkbox"/> Yes <input type="checkbox"/> No VasodilIntraop (7463)	
Intraop Glucose Trough: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) IntraopGlucTrough (7464)		_____ mg/dL GlucTroughIntraop (7465)	
Intraop Insulin Given: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes →) IntraInsul (7473)		Intraop Insulin Total Dose _____ units TotInsulintra (7474)	
Intraoperative Processed EEG (BIS): <input type="checkbox"/> Yes <input type="checkbox"/> No IntraProcEEG (7476)			
Intraop Post-Induction/Pre-Incision Transesophageal Echo (TEE): <input type="checkbox"/> Yes <input type="checkbox"/> No IntraOpPreTEE (7480)			
(If Post-Induction/Pre-Incision TEE is Yes→)	LVEF Measured or Estimated: <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) PreLVEFMeas (7485)		LVEF: _____ % PreLVEF (7490)
	Left Atrial Size <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) LtAtrSz (7491)		Left Atrial Superior-Inferior _____ cm LtAtrSupInfSz (7492) Left Atrial Medial-Lateral _____ cm LtAtrMedLatSz (7493)
	RV Function: <input type="checkbox"/> Normal <input type="checkbox"/> Moderate Dysfunction <input type="checkbox"/> Not Assessed <input type="checkbox"/> Mild Dysfunction <input type="checkbox"/> Severe Dysfunction		
	Mitral Regurgitation: <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: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not assessed PrePFO (7535)		
	Ascending Aorta Assessed <input type="checkbox"/> Yes <input type="checkbox"/> No AscAoAssessed (7540)		
	(If Yes→)		Maximal Ascending Aorta Diameter: _____ cm MxAscAo (7545) Maximal Ascending Aorta Atheroma Thickness: _____ mm MxAscAoThick (7550) Ascending Aorta Atheroma Mobility: <input type="checkbox"/> Yes <input type="checkbox"/> No AsAthMo (7555)
	Aortic Arch Visualized: <input type="checkbox"/> Yes <input type="checkbox"/> No AoArcVis (7560)		
	(If Yes→)		Maximal Aortic Arch Atheroma Thickness: _____ mm MxArcAth (7565) Aortic Arch Atheroma Mobility: <input type="checkbox"/> Yes <input type="checkbox"/> No ArcAthMo (7570)
	Cardiopulmonary Bypass Used: <input type="checkbox"/> Yes <input type="checkbox"/> No CPBUsed (7575)		
(If CPB Use is Yes→)	ABG Management during cooling <input type="checkbox"/> Alpha-Stat <input type="checkbox"/> pH-Stat <input type="checkbox"/> Unknown ABGMgmtDurCool (7576)		
	ABG Management during rewarming <input type="checkbox"/> Alpha-Stat <input type="checkbox"/> pH-Stat <input type="checkbox"/> Unknown ABGMgmtDurRewarm (7577)		
	Arterial Outflow Temperature Measured <input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes→) ArtOutTempMeas (7578)		Highest Arterial Outflow Temperature: _____ °C HighArtOutTemp (7579)
	Retrograde Autologous Priming of CPB Circuit: <input type="checkbox"/> Yes <input type="checkbox"/> No RetrAutolPrim (7580)		
	Total Crystalloid Administered by Perfusion Team: _____ mL TotCrystPerf (7585)		
	(If mL >0 select all that apply) <input type="checkbox"/> 0.9 Sodium Chloride <input type="checkbox"/> Normosol <input type="checkbox"/> Ringer's Lactate <input type="checkbox"/> Plasmalyte CrystPerfTy (7586)		
	Total 5% Albumin Administered by Perfusion Team: _____ mL		

<b>TotAlbumPerf (7595)</b>	
Total 25% Albumin Administered by Perfusion Team: _____ mL	
<b>Tot25AlbumPerf (7596)</b>	
Hemofiltration Volume Removed by Perfusion Team: _____ mL	
<b>HemofilPerf (7600)</b>	
Inotropes used to wean from CPB: <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>InotropWeanCPB (7605)</b>	
Vasopressors used to wean from CPB: <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>VasopWeanCPB (7610)</b>	
Cell Saver Volume: _____ mL <b>CellSavVol (7612)</b>	Protamine Total Dose : _____ mgs <b>TotProt (7614)</b>
Post-Procedure Use Of Intraoperative TEE: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>IntraOpPostTEE (7615)</b>	
(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 <b>PostSAM (7620)</b>
Return to CPB for Echo Related Diagnosis: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>RetCPBEch (7625)</b>	
(If Yes →)	Reason for return to CPB: <input type="checkbox"/> New Wall Motion Abnormality <input type="checkbox"/> Residual Valvular Leak <b>RetCPBRsn (7626)</b> <input type="checkbox"/> Systolic Anterior Motion (SAM) <input type="checkbox"/> Paravalvular Leak <input type="checkbox"/> Ventricular Failure <input type="checkbox"/> Other <input type="checkbox"/> Unknown
	(If Ventricular Failure →) <input type="checkbox"/> Left Ventricular Failure <b>RetCPBRsnVentFailTy (7627)</b> <input type="checkbox"/> Right Ventricular Failure <input type="checkbox"/> Bi-Ventricular Failure <input type="checkbox"/> Unknown
Post-Procedure LVEF Measured: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostLVEFMeas (7630)</b>	(If Yes→) Post-Procedure LVEF: _____ % <b>PostLVEF (7635)</b>
Post-Procedure RV Function: <input type="checkbox"/> Normal <input type="checkbox"/> Moderate Dysfunction <input type="checkbox"/> Not Assessed <b>PostRVFx (7640)</b>	<input type="checkbox"/> Mild Dysfunction <input type="checkbox"/> Severe Dysfunction
Patient Died in the OR: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>ORDeath (7645)</b>	
(If Died in OR is No→)	Core Temp Measured upon Entry to ICU/PACU: <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostTempMeas (7650)</b>
(If Yes→)	Post Op Core Temp: _____ °C <b>PostCoreTemp (7655)</b>
Post-Op INR Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostINRMeas (7660)</b>	
(If Yes→)	INR: _____ <b>PostINR (7665)</b>
WBC Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostWBCMeas (7670)</b>	
(If Yes→)	WBC : _____ /μL <b>PostWBC (7675)</b>
Platelets Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostPltMeas (7680)</b>	
(If Yes→)	Platelet Count: _____ /μL <b>PostPlt (7685)</b>
Hemoglobin Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostHemMeas (7686)</b>	
(If Yes→)	Hemoglobin: _____ /gm/dL <b>PostHem (7687)</b>
Hematocrit Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostHCTMeas (7690)</b>	
(If Yes→)	Hematocrit: _____ % <b>PostHCT (7695)</b>
Fibrinogen Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostFibrinMeas (7696)</b>	
(If Yes→)	Fibrinogen _____ mg/dL <b>PostFibrin (7697)</b>
Lactate Measured upon admission to post op care location (PACU, ICU): <input type="checkbox"/> Yes <input type="checkbox"/> No <b>PostLactMeas (7700)</b>	
(If Yes→)	Lactate: _____ mg/dL <b>PostLact (7705)</b>
Peak Glucose between within 18-24 hours after OR Exit Time: _____ <b>PostOpPeakGlu (7708)</b>	
Post Op Propofol: <input type="checkbox"/> Yes <input type="checkbox"/> No	



<b>PropPost (7715)</b>
Post Op Other Sedation: <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>PostOthSed (7716)</b>
Post Op Delirium: <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>PostopDel (7720)</b>
Pain Score POD #3:
<b>PainScorePOD3 (7730)</b>
<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:
<b>PainScoreDisch (7735)</b>
<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