

**The Society of Thoracic Surgeons**

**Congenital Heart Surgery Database**

**Data Collection Form Version 3.22**

May 24, 2013

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| **ADMINISTRATIVE** |
| Participant ID: ParticID (10)  | STS Trial Link Number: STSTLink (80) |

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| **DEMOGRAPHICS** |
| Patient ID (software generated) PatID (90) | Patient Nat. ID (SSN): PatNationalID (110) | MRN:MedRecN (120) |
| Last Name: PatLName (140)  | First Name: PatFName (150)  | Middle Name: PatMName (170)  |
| Region: PatRegion (180) | Postal Code: PatPostalCode (190) | Country: PatCountry (200) |
| Birth City: BirthCit (210) | Birth Region: BirthSta (220) | Birth Country: BirthCou (230) |
| Mother’s Name Known: MatNameKnown (240)  | 🞎 Yes 🞎 No |
| *(If Yes →)* | Mother’s Last Name: MatLName (250) | Mother’s First Name: MatFName (260) | Mother’s Middle Name: MatMName (280) |
| Mother’s National ID Number (SSN) Known: MatSSNKnown (290)  | 🞎 Yes 🞎 No 🞎 Refused |
| *(If Yes →)* | Mother’s National ID Number (SSN): MatSSN (300) |
| DOB: *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_ DOB (310) | Birth Weight Known: BirthWtKnown (320) | 🞎 Yes 🞎 No  | *(If Yes →)* Birth Weight (kg):BirthWtKg (330) |
| Gender: 🞎 M 🞎 F 🞎Ambiguous Gender (340) | Premature Birth: 🞎 Yes 🞎 No 🞎 UnknownPremature (350) |
| Gestational Age at Birth Known:GestAgeKnown (360) | 🞎 Yes 🞎 No | *(If Yes →)* | Gestational age at birth (in weeks): GestAgeWeeks (370) |
| Multiple Gestation: MultGest (380) | 🞎 Yes 🞎 No 🞎 Unknown  | Antenatal Diagnosis of Congenital Heart Disease:AntenatalDiag(381) | 🞎 Yes 🞎 No 🞎 Unknown |
| Race (select all that apply):  | Caucasian: RaceCaucasian (390)Asian: RaceAsian (410)Native Hawaiian/Pacific Islander: RaceNativePacific (430) | 🞎 Yes 🞎 No🞎 Yes 🞎 No🞎 Yes 🞎 No | Black/African American: RaceBlack (400)Am Indian/Alaskan Native: RaceNativeAm (420)Other: RaceOther (440) | 🞎 Yes 🞎 No🞎 Yes 🞎 No🞎 Yes 🞎 No  |
| Hispanic or Latino Ethnicity:Ethnicity (450) | 🞎 Yes 🞎 No |
| Date of Last Follow-Up: LFUDate (460) | *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_ |
| Last follow-up NYHA Classification: LFUNYHA (470)  | 🞎 Not Assessed 🞎 NYHA 1 🞎 NYHA 2 🞎 NYHA 3 🞎 NYHA 4 |
| Mortality Status at Last Follow-Up: LFUMortStat (480) | 🞎 Alive 🞎 Dead |
| Mortality Date: MtDate (490)  | *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_ |

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| **NONCARDIAC CONGENITAL ANATOMIC ABNORMALITIES (select all that apply)** NCAA (530) |
|  |  None |
|  |  Major abnormality of head, Choanal atresia |
|  |  Major abnormality of head, Cleft lip |
|  |  Major abnormality of head, Cleft palate |
|  |  Major abnormality of head |
|  |  Major abnormality of brain, Hydrocephalus |
|  |  Major abnormality of brain, Macrocephaly |
|  |  Major abnormality of brain, Microcephaly |
|  |  Major abnormality of brain |
|  |  Major abnormality of spinal cord, Myelomeningocele |
|  |  Major abnormality of spinal cord, Spina bifida |
|  |  Major abnormality of spinal cord |
|  |  Major abnormality of spine, Scoliosis |
|  |  Major abnormality of spine |
|  |  Major abnormality of larynx - trachea - or bronchus, Laryngomalacia |
|  |  Major abnormality of larynx - trachea - or bronchus, Congenital tracheal stenosis |
|  |  Major abnormality of larynx - trachea - or bronchus, Tracheomalacia |
|  |  Major abnormality of larynx - trachea - or bronchus, Tracheoesophageal fistula (TEF) |
|  |  Major abnormality of larynx - trachea - or bronchus, Bronchomalacia |
|  |  Major abnormality of larynx - trachea - or bronchus |
|  |  Major abnormality of lung, Congenital lobar emphysema (CLE) |
|  |  Major abnormality of lung, Cystic congenital adenomatous malformation of the lung (CAM) |
|  |  Major abnormality of lung, Cystic fibrosis |
|  |  Major abnormality of lung, Pulmonary lymphangiectasia |
|  |  Major abnormality of lung |
|  |  Major abnormality of abdominal wall, Congenital diaphragmatic hernia (CDH) |
|  |  Major abnormality of abdominal wall, Gastroschisis |
|  |  Major abnormality of abdominal wall, Omphalocele |
|  |  Major abnormality of gastrointestinal system, Biliary atresia |
|  |  Major abnormality of gastrointestinal system, Duodenal atresia |
|  |  Major abnormality of gastrointestinal system, Duodenal stenosis |
|  |  Major abnormality of gastrointestinal system, Jejunal atresia |
|  |  Major abnormality of gastrointestinal system, Jejunal stenosis |
|  |  Major abnormality of gastrointestinal system, Ileal atresia |
|  |  Major abnormality of gastrointestinal system, Ileal stenosis |
|  |  Major abnormality of gastrointestinal system, Intestinal malrotation |
|  |  Major abnormality of gastrointestinal system, Hirschsprung's disease (Congenital aganglionic megacolon) |
|  |  Major abnormality of gastrointestinal system, Stenosis of large intestine |
|  |  Major abnormality of gastrointestinal system, Atresia of large intestine |
|  |  Major abnormality of gastrointestinal system, Atresia of rectum |
|  |  Major abnormality of gastrointestinal system, Stenosis of rectum |
|  |  Major abnormality of gastrointestinal system, Anal Atresia (imperforate anus) |
|  |  Major abnormality of gastrointestinal system |
|  |  Major abnormality of kidney - ureter - or bladder |
|  |  Other |
|  |  *(If NCAA is Other ↓)*   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Major Noncardiac Abnormality- Other- Specify NCAAOthSp (540) |
| **CHROMOSOMAL ABNORMALITIES** ChromAb (570) |
| 🞎 | No chromosomal abnormality identified | 🞎 | 5p |
| 🞎 | 11p15.5 | 🞎 | 6p12 |
| 🞎 | 11q | 🞎 | 7q11 |
| 🞎 | 12p1.21 | 🞎 | 7q11.23 |
| 🞎 | 12p12.1 | 🞎 | 7q32 |
| 🞎 | 12q24 | 🞎 | 7q34 |
| 🞎 | 15q21.1 | 🞎 | 8q12 |
| 🞎 | 1q42.1 | 🞎 | TGFBR1 or 2 |
| 🞎 | 20p12 | 🞎 | Trisomy 08 |
| 🞎 | 22q11 deletion | 🞎 | Trisomy 09 |
| 🞎 | 2p21 | 🞎 | Trisomy 13 |
| 🞎 | 3p22 | 🞎 | Trisomy 18 |
| 🞎 | 45X0 | 🞎 | Trisomy 21 |
| 🞎 | 47,XXY | 🞎 | Other chromosomal abnormality |
| 🞎 | 4p |  *(If ChromAb is Other chromosomal abnormality ↓)* |
| 🞎 | 4p16 |   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Chromosomal Abnormality - Other - Specify ChromAbOthSp (580)  |
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| **SYNDROMES (select all that apply)** Syndrome (610) |
| 🞎 | No syndromic abnormality identified | 🞎 | Long QT syndrome (Ward Romano syndrome) |
| 🞎 | Alagille syndrome (intrahepatic biliary duct agenesis) | 🞎 | Marfan syndrome |
| 🞎 | Apert syndrome | 🞎 | Marfan-like syndrome |
| 🞎 | Brugada syndrome (Sudden unexplained nocturnal death syndrome) (SUNDS) | 🞎 | Mucopolysaccharidosis type IH (Hurler syndrome) |
| 🞎 | Cardiofaciocutaneous syndrome | 🞎 | Mucopolysaccharidosis type IH/S (Hurler-Scheie syndrome) |
| 🞎 | Carpenter syndrome | 🞎 | Mucopolysaccharidosis type II (Hunter syndrome) |
| 🞎 | Cat-eye syndrome | 🞎 | Mucopolysaccharidosis type IS (Scheie syndrome) |
| 🞎 | CHARGE Association | 🞎 | Noonan syndrome |
| 🞎 | Cornelia de Lange syndrome | 🞎 | Patau syndrome (Trisomy 13) |
| 🞎 | Costello syndrome | 🞎 | Pierre Robin syndrome |
| 🞎 | Cri-du-chat syndrome | 🞎 | Prune Belly syndrome |
| 🞎 | Deletion 10p syndrome | 🞎 | Rethore syndrome (Trisomy 9) |
| 🞎 | Deletion 8p syndrome | 🞎 | Fetal Rubella syndrome (Congenital rubella syndrome) |
| 🞎 | DiGeorge syndrome (velocardiofacial syndrome) (conotruncal anomaly face syndrome) (22q11 deletion)  | 🞎 | Rubinstein-Taybi syndrome |
| 🞎 | Down syndrome (Trisomy 21) | 🞎 | Short QT syndrome |
| 🞎 | Edwards syndrome (Trisomy 18) | 🞎 | Sickle cell disease |
| 🞎 | Ehlers- Danlos Syndrome | 🞎 | Sickle cell trait |
| 🞎 | Ellis-van Creveld syndrome | 🞎 | Situs inversus |
| 🞎 | Fetal alcohol syndrome (FAS) | 🞎 | Smith-Lemli-Opitz syndrome |
| 🞎 | Fetal drug exposure | 🞎 | Turner syndrome (45XO) |
| 🞎 | Goldenhar syndrome | 🞎 | VACTERL syndrome (VACTER/VATER/VATERR syndrome) |
| 🞎 | Heterotaxy syndrome | 🞎 | VACTERL-H syndrome (VATER association with hydrocephalus) (Briard-Evans syndrome) |
| 🞎 | Heterotaxy syndrome, Asplenia syndrome | 🞎 | Von Willebrand disease (vWD) |
| 🞎 | Heterotaxy syndrome, Polysplenia syndrome | 🞎 | Warkany syndrome (Trisomy 8) |
| 🞎 | Holt-Oram syndrome | 🞎 | Williams syndrome (Williams-Beuren syndrome) |
| 🞎 | Jacobsen syndrome | 🞎 | Wolff-Parkinson-White syndrome (WPW syndrome) |
| 🞎 | Kabuki syndrome | 🞎 | Wolf-Hirschhorn syndrome |
| 🞎 | Kartagener syndrome (Siewert syndrome) (Primary ciliary dyskinesia) | 🞎 | Other syndromic abnormality |
| 🞎 | Klinefelter syndrome (XXY Syndrome) |  | *(If Other Syndromic abnormality, Specify ↓)* |
| 🞎 | LEOPARD syndrome |  | Syndrome – Other – Specify SyndromeOthSp (620) |
| 🞎 | Loeys-Dietz syndrome |  |

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| **HOSPITALIZATION** |
| Hospital Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_HospName (630) |
| Hospital Zip Code:\_\_\_\_\_\_\_\_\_\_\_\_\_HospZIP (640) | Hospital State:\_\_\_\_\_\_\_\_\_\_\_\_\_HospStat (650) | Hospital National Provider Identifier: \_\_\_\_\_\_\_\_\_\_\_\_\_\_HospNPI (660) |
| Payor – *(Select all that apply)* Government Health Insurance: 🞎 Yes 🞎 No *(If Yes, select all that apply: ↓)*PayorGov (670) |
|  | Medicare: 🞎 Yes 🞎 No PayorGovMcare (680) | *(If Yes →)*Medicare Fee For Service: 🞎 Yes 🞎 NoMedicareFFS (690)*(If Yes →)*  Medicare Health Insurance Claim Number: \_\_\_\_\_\_\_\_\_\_\_MHICNumber (695) |
|  | Medicaid: 🞎 Yes 🞎 NoPayorGovMcaid (700)State-Specific Plan: 🞎 Yes 🞎 NoPayorGovState (720) | Military Health Care: 🞎 Yes 🞎 NoPayorGovMil(710)Indian Health Service: 🞎 Yes 🞎 NoPayorGovIHS (730) |
| Commercial Health Insurance: PayorCom (740)Health Maintenance Organization: PayorHMO (750) Non-U.S. Insurance: PayorNonUS (760)None / Self: PayorNS (770) | 🞎 Yes 🞎 No🞎 Yes 🞎 No🞎 Yes 🞎 No🞎 Yes 🞎 No |
| Admission date: *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_ Surgery date: *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_AdmitDt (780) SurgDt (790) |
| Height (Cm): \_\_\_\_\_\_\_\_\_\_ HeightCm (800) | Weight (Kg):\_\_\_\_\_\_\_\_\_\_ WeightKg (810) | Age at time of surgery (in days):\_\_\_\_\_\_\_\_\_\_AgeDays (820)  |
| **PREOPERATIVE FACTORS (select all that apply)** PreopFactor (850) |
| 🞎 | No preoperative factors identified | 🞎 | Sepsis |
| 🞎 | Cardio-pulmonary resuscitation | 🞎 | Sepsis with positive blood culture |
| 🞎 | Preoperative complete AV block | 🞎 | Preoperative neurological deficit |
| 🞎 | Preoperative/Preprocedural mechanical circulatory support (IABP, VAD, ECMO, or CPS) | 🞎 | Seizure during lifetime |
| 🞎 | Shock, Persistent at time of surgery | 🞎 | Seizure within 48 hours prior to surgery |
| 🞎 | Shock, Resolved at time of surgery | 🞎 | Stroke, CVA, or Intracranial hemorrhage > Grade 2 during lifetime |
| 🞎 | Diabetes mellitus, Insulin dependent | 🞎 | Stroke, CVA, or Intracranial hemorrhage > Grade 2 within 48 hours prior to surgery |
| 🞎 | Diabetes mellitus, Non-insulin dependent | 🞎 | Renal dysfunction  |
| 🞎 | Hypothyroidism | 🞎 | Renal failure requiring dialysis |
| 🞎 | Currently taking steroids as treatment for adrenal insufficiency | 🞎 | Mechanical ventilation to treat cardiorespiratory failure |
| 🞎 | Currently taking steroids for any reason other than treatment of adrenal insufficiency | 🞎 | Respiratory Syncytial Virus |
| 🞎 | Colostomy present | 🞎 | Single lung |
| 🞎 | Enterostomy of small intestine present | 🞎 | Tracheostomy present |
| 🞎 | Esophagostomy present | 🞎 | Asthma |
| 🞎 | Gastrostomy present | 🞎 | Bronchopulmonary Dysplasia (BPD) |
| 🞎 | Hepatic dysfunction | 🞎 | ICD (AICD) ([automatic] implantable cardioverter defibrillator) present |
| 🞎 | Necrotizing entero-colitis, Treated medically | 🞎 | Pacemaker present |
| 🞎 | Necrotizing entero-colitis, Treated surgically | 🞎 | Tobacco use |
| 🞎 | Coagulation disorder, Hypercoagulable state | 🞎 | Family History of Coronary Artery Disease |
| 🞎 | Coagulation disorder, Hypocoagulable state not secondary to medication (intrinsic hypocoagulable state) | 🞎 | Dyslipidemia |
| 🞎 | Coagulation disorder, Hypocoagulable state secondary to medication | 🞎 | Other preoperative factors |
| 🞎 | Endocarditis |  |  |

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| **DIAGNOSIS**  |
|  Select **ALL** diagnosis that apply (↓) Diagnosis (890) | CIRCLE the ONE PRIMARY diagnosis for this operation PrimDiag (900) | Select the **ONE** FUNDAMENTAL diagnosis for this patient (↓)FundDiagnosis (382)  |

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| **Septal Defects**  | ASD | 🞎 | PFO | 🞎 |
| 🞎 | ASD, Secundum | 🞎 |
| 🞎 | ASD, Sinus venosus | 🞎 |
| 🞎 | ASD, Coronary sinus | 🞎 |
| 🞎 | ASD, Common atrium (single atrium) | 🞎 |
|  | 🞎 | ASD, Postoperative interatrial communication | NA |
| VSD  | 🞎 | VSD, Type 1 (Subarterial) (Supracristal) (Conal septal defect) (Infundibular) | 🞎 |
| 🞎 | VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular) | 🞎 |
| 🞎 | VSD, Type 3 (Inlet) (AV canal type) | 🞎 |
| 🞎 | VSD, Type 4 (Muscular) | 🞎 |
| 🞎 | VSD, Type: Gerbode type (LV-RA communication) | 🞎 |
| 🞎 | VSD, Multiple | 🞎 |
| AV Canal  | 🞎 | AVC (AVSD), Complete (CAVSD) | 🞎 |
| 🞎 | AVC (AVSD), Intermediate (transitional) | 🞎 |
| 🞎 | AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum) | 🞎 |
| AP Window  | 🞎 | AP window (aortopulmonary window) | 🞎 |
| 🞎 | Pulmonary artery origin from ascending aorta (hemitruncus) | 🞎 |
| Truncus Arteriosus  | 🞎 | Truncus arteriosus | 🞎 |
| 🞎 | Truncal valve insufficiency | 🞎 |
|  |  | 🞎 | Truncus arteriosus + Interrupted aortic arch | 🞎 |
| **Pulmonary Venous Anomalies** | Partial Anomalous Pulmonary Venous Connection | 🞎 | Partial anomalous pulmonary venous connection (PAPVC) | 🞎 |
| 🞎 | Partial anomalous pulmonary venous connection (PAPVC), scimitar | 🞎 |
| Total Anomalous Pulmonary Venous Connection | 🞎 | Total anomalous pulmonary venous connection (TAPVC), Type 1 (supracardiac) | 🞎 |
| 🞎 | Total anomalous pulmonary venous connection (TAPVC), Type 2 (cardiac) | 🞎 |
| 🞎 | Total anomalous pulmonary venous connection (TAPVC), Type 3 (infracardiac) | 🞎 |
| 🞎 | Total anomalous pulmonary venous connection (TAPVC), Type 4 (mixed) | 🞎 |
| **Cor Triatriatum**  |   | 🞎 | Cor triatriatum | 🞎 |
| **Pulmonary Venous Stenosis** |   | 🞎 | Pulmonary venous stenosis | 🞎 |
| **Systemic Venous Anomalies**  | Anomalous Systemic Venous Connection | 🞎 | Systemic venous anomaly | 🞎 |
| Systemic venous obstruction | 🞎 | Systemic venous obstruction | 🞎 |
| **Right Heart Lesions**  | Tetralogy of Fallot | 🞎 | TOF | 🞎 |
| 🞎 | TOF, Pulmonary stenosis | 🞎 |
| 🞎 | TOF, AVC (AVSD) | 🞎 |
| 🞎 | TOF, Absent pulmonary valve | 🞎 |
| Pulmonary Atresia | 🞎 | Pulmonary atresia | 🞎 |
| 🞎 | Pulmonary atresia, IVS | 🞎 |
| 🞎 | Pulmonary atresia, VSD (Including TOF, PA) | 🞎 |
| 🞎 | Pulmonary atresia, VSD-MAPCA  | 🞎 |
| 🞎 | MAPCA(s) (major aortopulmonary collateral[s]) (without PA-VSD) | 🞎 |
| Tricuspid Valve Disease and Ebstein’s Anomaly | 🞎 | Ebstein's anomaly | 🞎 |
| 🞎 | Tricuspid regurgitation, non-Ebstein's related | 🞎 |
| 🞎 | Tricuspid stenosis | 🞎 |
| 🞎 | Tricuspid regurgitation and tricuspid stenosis | 🞎 |
| 🞎 | Tricuspid valve, Other | 🞎 |
|  |  |  |  |
| RVOT Obstruction and/or Pulmonary Stenosis | 🞎 | Pulmonary stenosis, Valvar | 🞎 |
| 🞎 | Pulmonary artery stenosis (hypoplasia), Main (trunk) | 🞎 |
| 🞎 | Pulmonary artery stenosis, Branch, Central (within the hilar bifurcation) | 🞎 |
| 🞎 | Pulmonary artery stenosis, Branch, Peripheral (at or beyond the hilar bifurcation) | 🞎 |
| 🞎 | Pulmonary artery, Discontinuous | 🞎 |
| 🞎 | Pulmonary stenosis, Subvalvar | 🞎 |
| 🞎 | DCRV | 🞎 |
| Pulmonary Valve Disease | 🞎 | Pulmonary valve, Other | 🞎 |
| 🞎 | Pulmonary insufficiency | 🞎 |
| 🞎 | Pulmonary insufficiency and pulmonary stenosis | 🞎 |
| **Shunt failure** | Shunt failure | 🞎 | Shunt Failure | NA |
| **Conduit failure**  | Conduit failure | 🞎 | Conduit failure | NA |
| **Left Heart Lesions** | Aortic Valve Disease  | 🞎 | Aortic stenosis, Subvalvar | 🞎 |
| 🞎 | Aortic stenosis, Valvar | 🞎 |
| 🞎 | Aortic stenosis, Supravalvar | 🞎 |
| 🞎 | Aortic valve atresia | 🞎 |
| 🞎 | Aortic insufficiency | 🞎 |
| 🞎 | Aortic insufficiency and aortic stenosis | 🞎 |
| 🞎 | Aortic valve, Other | 🞎 |
| Sinus of Valsalva Fistula/Aneurysm | 🞎 | Sinus of Valsalva aneurysm | 🞎 |
| LV to Aorta Tunnel | 🞎 | LV to aorta tunnel | 🞎 |
| Mitral Valve Disease | 🞎 | Mitral stenosis, Supravalvar mitral ring | 🞎 |
| 🞎 | Mitral stenosis, Valvar | 🞎 |
| 🞎 | Mitral stenosis, Subvalvar | 🞎 |
| 🞎 | Mitral stenosis, Subvalvar, Parachute | 🞎 |
| 🞎 | Mitral stenosis | 🞎 |
| 🞎 | Mitral regurgitation and mitral stenosis | 🞎 |
| 🞎 | Mitral regurgitation | 🞎 |
| 🞎 | Mitral valve, Other | 🞎 |
| Hypoplastic Left Heart Syndrome | 🞎 | Hypoplastic left heart syndrome (HLHS) | 🞎 |
| Shone’s syndrome | 🞎 | Shone’s syndrome *{CANNOT BE PRIMARY DIAGNOSIS}* | 🞎 |
| **Cardiomyopathy** |  | 🞎 | Cardiomyopathy (including dilated, restrictive, and hypertrophic) | 🞎 |
| 🞎 | Cardiomyopathy, End-stage congenital heart disease | 🞎 |
| **Pericardial Disease**  |  | 🞎 | Pericardial effusion | 🞎 |
| 🞎 | Pericarditis | 🞎 |
| 🞎 | Pericardial disease, Other | 🞎 |
| **Single Ventricle**  |   | 🞎 | Single ventricle, DILV | 🞎 |
| 🞎 | Single ventricle, DIRV | 🞎 |
| 🞎 | Single ventricle, Mitral atresia | 🞎 |
| 🞎 | Single ventricle, Tricuspid atresia | 🞎 |
| 🞎 | Single ventricle, Unbalanced AV canal | 🞎 |
| 🞎 | Single ventricle, Heterotaxia syndrome | 🞎 |
| 🞎 | Single ventricle, Other | 🞎 |
| 🞎 | Single ventricle + Total anomalous pulmonary venous connection (TAPVC) | 🞎 |
| **Transposition of the Great Arteries** | Congenitally Corrected TGA | 🞎 | Congenitally corrected TGA | 🞎 |
| 🞎 | Congenitally corrected TGA, IVS | 🞎 |
| 🞎 | Congenitally corrected TGA, IVS-LVOTO | 🞎 |
| 🞎 | Congenitally corrected TGA, VSD | 🞎 |
| 🞎 | Congenitally corrected TGA, VSD-LVOTO | 🞎 |
| Transposition of the Great Arteries | 🞎 | TGA, IVS | 🞎 |
| 🞎 | TGA, IVS-LVOTO | 🞎 |
| 🞎 | TGA, VSD | 🞎 |
| 🞎 | TGA, VSD-LVOTO | 🞎 |
| **DORV**  |   | 🞎 | DORV, VSD type | 🞎 |
| 🞎 | DORV, TOF type | 🞎 |
| 🞎 | DORV, TGA type | 🞎 |
| 🞎 | DORV, Remote VSD (uncommitted VSD) | 🞎 |
| 🞎 | DORV + AVSD (AV Canal) | 🞎 |
| 🞎 | DORV, IVS | 🞎 |
| **DOLV**  |   | 🞎 | DOLV | 🞎 |
| **Thoracic Arteries and Veins**  | Coarctation of Aorta and Aortic arch hypoplasia | 🞎 | Coarctation of aorta | 🞎 |
| 🞎 | Aortic arch hypoplasia | 🞎 |
| 🞎 | VSD + Aortic arch hypoplasia | 🞎 |
| 🞎 | VSD + Coarctation of aorta | 🞎 |
| Coronary Artery Anomalies | 🞎 | Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA) | 🞎 |
| 🞎 | Coronary artery anomaly, Anomalous pulmonary origin (includes ALCAPA) | 🞎 |
| 🞎 | Coronary artery anomaly, Fistula | 🞎 |
| 🞎 | Coronary artery anomaly, Aneurysm | 🞎 |
| 🞎 | Coronary artery anomaly, Other | 🞎 |
| Interrupted Arch  | 🞎 | Interrupted aortic arch | 🞎 |
| 🞎 | Interrupted aortic arch + VSD | 🞎 |
| 🞎 | Interrupted aortic arch + AP window (aortopulmonary window) | 🞎 |
| Patent Ductus Arteriosus | 🞎 | Patent ductus arteriosus | 🞎 |
| Vascular rings and Slings | 🞎 | Vascular ring | 🞎 |
| 🞎 | Pulmonary artery sling | 🞎 |
| Aortic Aneurysm  | 🞎 | Aortic aneurysm (including pseudoaneurysm) | 🞎 |
| Aortic Dissection  | 🞎 | Aortic dissection | 🞎 |
| **Thoracic and Mediastinal Disease** |  Lung Disease | 🞎 | Lung disease, Benign | 🞎 |
| 🞎 | Lung disease, Malignant | 🞎 |
| Tracheal Stenosis  | 🞎 | Tracheal stenosis | 🞎 |
| 🞎 | Airway disease | 🞎 |
| Pleural Disease | 🞎 | Pleural disease, Benign | 🞎 |
| 🞎 | Pleural disease, Malignant | 🞎 |
| 🞎 | Pneumothorax | 🞎 |
| 🞎 | Pleural effusion | 🞎 |
| 🞎 | Chylothorax | 🞎 |
| 🞎 | Empyema | 🞎 |
| Esophageal Disease | 🞎 | Esophageal disease, Benign | 🞎 |
| 🞎 | Esophageal disease, Malignant | 🞎 |
| Mediastinal Disease | 🞎 | Mediastinal disease | 🞎 |
| 🞎 | Mediastinal disease, Benign | 🞎 |
| 🞎 | Mediastinal disease, Malignant | 🞎 |
| Diaphragmatic Disease | 🞎 | Diaphragm paralysis | 🞎 |
| 🞎 | Diaphragm disease, Other | 🞎 |
|  | Chest Wall | 🞎 | Rib tumor, Benign | 🞎 |
|  | 🞎 | Rib tumor, Malignant | 🞎 |
|  | 🞎 | Rib tumor, Metastatic | 🞎 |
|  | 🞎 | Sternal tumor, Benign | 🞎 |
|  | 🞎 | Sternal tumor, Malignant | 🞎 |
|  | 🞎 | Sternal tumor, Metastatic | 🞎 |
|  | Pectus Excavatum, Carinatum | 🞎 | Pectus carinatum | 🞎 |
|  | 🞎 | Pectus excavatum | 🞎 |
|  | Thoracic Outlet | 🞎 | Thoracic outlet syndrome | 🞎 |
| **Electrophysiological** |   | 🞎 | Arrhythmia | 🞎 |
| 🞎 | Arrhythmia, Atrial | 🞎 |
| 🞎 | Arrhythmia, Junctional | 🞎 |
| 🞎 | Arrhythmia, Ventricular | 🞎 |
| 🞎 | Arrhythmia, Heart block | 🞎 |
| 🞎 | Arrhythmia, Heart block, Acquired | 🞎 |
| 🞎 | Arrhythmia, Heart block, Congenital | 🞎 |
| 🞎 | Arrhythmia, Pacemaker, Indication for replacement | NA |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Miscellaneous, Other**  |   | 🞎 | Atrial Isomerism, Left *{CANNOT BE PRIMARY DIAGNOSIS}* |  NA |
| 🞎 | Atrial Isomerism, Right *{CANNOT BE PRIMARY DIAGNOSIS}* |  NA |
| 🞎 | Dextrocardia *{CANNOT BE PRIMARY DIAGNOSIS}* |  NA |
| 🞎 | Levocardia *{CANNOT BE PRIMARY DIAGNOSIS}* |  NA |
| 🞎 | Mesocardia *{CANNOT BE PRIMARY DIAGNOSIS}* |  NA |
| 🞎 | Situs inversus  *{CANNOT BE PRIMARY DIAGNOSIS}* |  NA |
| 🞎 | Aneurysm, Ventricular, Right (including pseudoaneurysm) | 🞎 |
| 🞎 | Aneurysm, Ventricular, Left (including pseudoaneurysm) | 🞎 |
| 🞎 | Aneurysm, Pulmonary artery | 🞎 |
| 🞎 | Aneurysm, Other | 🞎 |
| 🞎 | Hypoplastic RV | 🞎 |
| 🞎 | Hypoplastic LV | 🞎 |
| 🞎 | Postoperative bleeding | NA |
| 🞎 | Mediastinitis | 🞎 |
| 🞎 | Endocarditis | 🞎 |
| 🞎 | Rheumatic heart disease *{CANNOT BE PRIMARY DIAGNOSIS}* | NA |
| 🞎 | Prosthetic valve failure | NA |
| 🞎 | Myocardial infarction | 🞎 |
| 🞎 | Cardiac tumor | 🞎 |
| 🞎 | Pulmonary AV fistula | 🞎 |
| 🞎 | Pulmonary embolism | 🞎 |
| 🞎 | Pulmonary vascular obstructive disease | 🞎 |
| 🞎 | Pulmonary vascular obstructive disease (Eisenmenger’s) | 🞎 |
| 🞎 | Primary pulmonary hypertension | 🞎 |
| 🞎 | Persistent fetal circulation | 🞎 |
| 🞎 | Meconium aspiration | 🞎 |
| 🞎 | Kawasaki Disease | 🞎 |
| 🞎 | Cardiac, Other | 🞎 |
| 🞎 | Thoracic and/or mediastinal, Other | 🞎 |
| 🞎 | Peripheral vascular, Other | 🞎 |
|  |  | 🞎 | Complication of cardiovascular catheterization procedure | NA |
|  |  | 🞎 | Complication of cardiovascular catheterization procedure, Device embolization | NA |
|  |  | 🞎 | Complication of cardiovascular catheterization procedure, Device malfunction | NA |
|  |  | 🞎 | Complication of cardiovascular catheterization procedure, Perforation | NA |
|  |  | 🞎 | Complication of interventional radiology procedure | NA |
|  |  | 🞎 | Complication of interventional radiology procedure, Device embolization | NA |
|  |  | 🞎 | Complication of interventional radiology procedure, Device malfunction | NA |
|  |  | 🞎 | Complication of interventional radiology procedure, Perforation | NA |
|  |  | 🞎 | Foreign body, Intracardiac foreign body | NA |
|  |  | 🞎 | Foreign body, Intravascular foreign body | NA |
|  |  | 🞎 | Open sternum with closed skin | NA |
|  |  | 🞎 | Open sternum with open skin (includes membrane placed to close skin) | NA |
|  |  | 🞎 | Retained sternal wire causing irritation | NA |
|  |  | 🞎 | Syncope | NA |
|  |  | 🞎 | Trauma, Blunt | 🞎 |
|  |  | 🞎 | Trauma, Penetrating | 🞎 |
|  |  | 🞎 | Normal heart | 🞎 |
|  |  | 🞎 | Miscellaneous, Other | 🞎 |
| **STATUS POST (No “Status post – diagnoses” can be a primary diagnosis or fundamental diagnosis)** |  |  |  | NA |
| **Septal Defects** | ASD | 🞎 | Status post - PFO, Primary closure |  |
| 🞎 | Status post - ASD repair, Primary closure |
| 🞎 | Status post - ASD repair, Patch |
| 🞎 | Status post - ASD repair, Device |
| 🞎 | Status post - ASD repair, Patch + PAPVC repair |
| 🞎 | Status post - ASD, Common atrium (single atrium), Septation |
| 🞎 | Status post - ASD creation/enlargement |
| 🞎 | Status post - ASD partial closure |
| 🞎 | Status post - Atrial septal fenestration |
| 🞎 | Status post - Atrial fenestration closure |
| VSD | 🞎 | Status post - VSD repair, Primary closure |
| 🞎 | Status post - VSD repair, Patch |
| 🞎 | Status post - VSD repair, Device |
| 🞎 | Status post - VSD, Multiple, Repair |
| 🞎 | Status post - VSD creation/enlargement |
| 🞎 | Status post - Ventricular septal fenestration |
| AV Canal | 🞎 | Status post - AVC (AVSD) repair, Complete (CAVSD) |
| 🞎 | Status post - AVC (AVSD) repair, Intermediate (Transitional) |
| 🞎 | Status post - AVC (AVSD) repair, Partial (Incomplete) (PAVSD) |
| 🞎 | Status post - Valvuloplasty, Common atrioventricular valve |
| 🞎 | Status post - Valvuloplasty converted to valve replacement in the same operation, Common atrioventricular valve |
| 🞎 | Status post - Valve replacement, Common atrioventricular valve |
| AP Window  | 🞎 | Status post - AP window repair |
| 🞎 | Status post - Pulmonary artery origin from ascending aorta (hemitruncus) repair |
| Truncus Arteriosus | 🞎 | Status post - Truncus arteriosus repair |
| 🞎 | Status post - Valvuloplasty, Truncal valve |
| 🞎 | Status post - Valvuloplasty converted to valve replacement in the same operation, Truncal valve |
| 🞎 | Status post - Valve replacement, Truncal valve |
| 🞎 | Status post - Truncus + Interrupted aortic arch repair (IAA) repair |
| **Pulmonary Venous Anomalies** | Partial Anomalous Pulmonary Venous Connection | 🞎 | Status post - PAPVC repair |
| 🞎 | Status post - PAPVC, Scimitar, Repair |
| 🞎 | Status post - PAPVC repair, Baffle redirection to left atrium with systemic vein translocation (Warden) (SVC sewn to right atrial appendage) |
| Total Anomalous Pulmonary Venous Connection | 🞎 | Status post - TAPVC repair |
| 🞎 | Status post - TAPVC repair + Shunt - systemic-to-pulmonary |
| **Cor Triatriatum** |   | 🞎 | Status post - Cor triatriatum repair |
| **Pulmonary Venous Stenosis** |   | 🞎 | Status post - Pulmonary venous stenosis repair |
| **Systemic Venous Anomalies** | Anomalous Systemic Venous Connection | 🞎 | Status post - Atrial baffle procedure (non-Mustard, non-Senning) |
| 🞎 | Status post - Anomalous systemic venous connection repair |
| Systemic venous obstruction | 🞎 | Status post - Systemic venous stenosis repair |
| **Right Heart Lesions** | Tetralogy of Fallot | 🞎 | Status post - TOF repair, No ventriculotomy |
| 🞎 | Status post - TOF repair, Ventriculotomy, Nontransanular patch |
| 🞎 | Status post - TOF repair, Ventriculotomy, Transanular patch |
| 🞎 | Status post - TOF repair, RV-PA conduit |
| 🞎 | Status post - TOF - AVC (AVSD) repair |
| 🞎 | Status post - TOF - Absent pulmonary valve repair |
| Pulmonary Atresia/VSD | 🞎 | Status post - Pulmonary atresia - VSD (including TOF, PA) repair |
| 🞎 | Status post - Pulmonary atresia - VSD - MAPCA repair, Complete single stage repair (1-stage that includes bilateral pulmonary unifocalization + VSD closure + RV to PA connection [with or without conduit]) |
| 🞎 | Status post - Pulmonary atresia - VSD - MAPCA repair, Status post prior complete unifocalization (includes VSD closure + RV to PA connection [with or without conduit]) |
| 🞎 | Status post - Pulmonary atresia - VSD - MAPCA repair, Status post prior incomplete unifocalizarion (includes completion of pulmonary unifocalization + VSD closure + RV to PA connection [with or without conduit]) |
| 🞎 | Status post - Unifocalization MAPCA(s), Bilateral pulmonary unifocalization - Complete unifocalization (all usable MAPCA[s] are incorporated) |
| 🞎 | Status post - Unifocalization MAPCA(s), Bilateral pulmonary unifocalization - Incomplete unifocalization (not all usable MAPCA[s] are incorporated) |
| 🞎 | Status post - Unifocalization MAPCA(s), Unilateral pulmonary unifocalization |
| 🞎 | Status post – Unifocalization MAPCA(s) |
|  | 🞎 | Status post - Occlusion of MAPCA(s) |
| Tricuspid Valve Disease and Ebstein’s Anomaly | 🞎 | Status post - Valvuloplasty, Tricuspid |
| 🞎 | Status post - Valvuloplasty converted to valve replacement in the same operation, Tricuspid |
| 🞎 | Status post - Ebstein's repair |
| 🞎 | Status post - Valve replacement, Tricuspid (TVR) |
| 🞎 | Status post - Valve closure, Tricuspid (exclusion, univentricular approach) |
| 🞎 | Status post - Valve excision, Tricuspid (without replacement) |
| 🞎 | Status post - Valve surgery, Other, Tricuspid |
| RVOT Obstruction, IVS Pulmonary Stenosis | 🞎 | Status post - RVOT procedure |
| 🞎 | Status post - 1 1/2 ventricular repair |
| 🞎 | Status post - PA, reconstruction (plasty), Main (trunk) |
| 🞎 | Status post - PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation) |
| 🞎 | Status post - PA, reconstruction (plasty), Branch, Peripheral (at or beyond the hilar bifurcation) |
| 🞎 | Status post - DCRV repair |
| Pulmonary Valve Disease | 🞎 | Status post - Valvuloplasty, Pulmonic |
| 🞎 | Status post - Valvuloplasty converted to valve replacement in the same operation, Pulmonic |
| 🞎 | Status post - Valve replacement, Pulmonic (PVR) |
| 🞎 | Status post - Valve excision, Pulmonary (without replacement) |
| 🞎 | Status post - Valve closure, Semilunar |
| 🞎 | Status post - Valve surgery, Other, Pulmonic |
| **Conduit operations** | Conduit operations | 🞎 | Status post - Conduit placement, RV to PA |
| 🞎 | Status post - Conduit placement, LV to PA |
| 🞎 | Status post - Conduit placement, Ventricle to aorta |
| 🞎 | Status post - Conduit placement, Other |
| Conduit Stenosis / Insufficiency | 🞎 | Status post - Conduit reoperation |
| **Left Heart Lesions**  | Aortic Valve Disease | 🞎 | Status post - Valvuloplasty, Aortic |
| 🞎 | Status post - Valvuloplasty converted to valve replacement in the same operation, Aortic |
| 🞎 | Status post - Valvuloplasty converted to valve replacement in the same operation, Aortic – with Ross procedure |
| 🞎 | Status post - Valvuloplasty converted to valve replacement in the same operation, Aortic – with Ross-Konno procedure |
| 🞎 | Status post - Valve replacement, Aortic (AVR) |
| 🞎 | Status post - Valve replacement, Aortic (AVR), Mechanical |
| 🞎 | Status post - Valve replacement, Aortic (AVR), Bioprosthetic |
| 🞎 | Status post - Valve replacement, Aortic (AVR), Homograft |
| 🞎 | Status post - Aortic root replacement, Bioprosthetic |
| 🞎 | Status post - Aortic root replacement, Mechanical |
| 🞎 | Status post - Aortic root replacement, Homograft |
| 🞎 | Status post - Aortic root replacement, Valve sparing |
| 🞎 | Status post - Ross procedure |
| 🞎 | Status post - Konno procedure |
| 🞎 | Status post - Ross-Konno procedure |
| 🞎 | Status post - Other annular enlargement procedure |
| 🞎 | Status post - Aortic stenosis, Subvalvar, Repair |
| 🞎 | Status post - Aortic stenosis, Subvalvar, Repair, With myectomy for IHSS |
| 🞎 | Status post - Aortic stenosis, Supravalvar, Repair |
| 🞎 | Status post - Valve surgery, Other, Aortic |
| Sinus of Valsalva Aneurysm | 🞎 | Status post - Sinus of Valsalva, Aneurysm repair |
| LV to Aorta Tunnel  | 🞎 | Status post - LV to aorta tunnel repair |
| Mitral Valve Disease | 🞎 | Status post - Valvuloplasty, Mitral |
| 🞎 | Status post - Valvuloplasty converted to valve replacement in the same operation, Mitral |
| 🞎 | Status post - Mitral stenosis, Supravalvar mitral ring repair |
| 🞎 | Status post - Valve replacement, Mitral (MVR) |
| 🞎 | Status post - Valve surgery, Other, Mitral |
| Hypoplastic Left Heart and Related malformations | 🞎 | Status post - Norwood procedure |
| 🞎 | Status post - HLHS biventricular repair |
|  | 🞎 | Status post - Conduit insertion right ventricle to pulmonary artery + Intraventricular tunnel left ventricle to neoaorta + arch reconstruction (Rastelli and Norwood type arch reconstruction) (Yasui) |
| **Hybrid** |  | 🞎 | Status post - Hybrid Approach "Stage 1", Application of RPA & LPA bands |
| 🞎 | Status post - Hybrid Approach "Stage 1", Stent placement in arterial duct (PDA) |
| 🞎 | Status post - Hybrid Approach "Stage 1", Stent placement in arterial duct (PDA) + application of RPA & LPA bands  |
| 🞎 | Status post - Hybrid approach "Stage 2", Aortopulmonary amalgamation + Superior Cavopulmonary anastomosis(es) + PA Debanding + Aortic arch repair (Norwood [Stage 1] + Superior Cavopulmonary anastomosis(es) + PA Debanding) |
| 🞎 | Status post - Hybrid approach "Stage 2", Aortopulmonary amalgamation + Superior Cavopulmonary anastomosis(es) + PA Debanding + Without aortic arch repair |
|  |  | 🞎 | Status post – Hybrid Approach, Transcardiac balloon dilatation |
|  |  | 🞎 | Status post – Hybrid Approach, Transcardiac transcatheter device placement |
| **Cardiomyopathy** |  | 🞎 | Status post - Transplant, Heart |
| 🞎 | Status post - Transplant, Heart and lung |
| 🞎 | Status post - Partial left ventriculectomy (LV volume reduction surgery) (Batista) |
| **Pericardial Disease** |  | 🞎 | Status post - Pericardial drainage procedure |
| 🞎 | Status post - Pericardiectomy |
| 🞎 | Status post - Pericardial procedure, Other |
| **Single Ventricle** |   | 🞎 | Status post - Fontan, Atrio-pulmonary connection |
| 🞎 | Status post - Fontan, Atrio-ventricular connection |
| 🞎 | Status post - Fontan, TCPC, Lateral tunnel, Fenestrated |
| 🞎 | Status post - Fontan, TCPC, Lateral tunnel, Nonfenestrated |
| 🞎 | Status post - Fontan, TCPC, External conduit, Fenestrated |
| 🞎 | Status post - Fontan, TCPC, External conduit, Nonfenestrated |
| 🞎 | Status post - Fontan, TCPC, Intra/extracardiac conduit, Fenestrated |
| 🞎 | Status post - Fontan, TCPC, Intra/extracardiac conduit, Nonfenestrated |
| 🞎 | Status post - Fontan revision or conversion (Re-do Fontan) |
| 🞎 | Status post - Fontan, Other |
| 🞎 | Status post - Fontan + Atrioventricular valvuloplasty |
| 🞎 | Status post - Ventricular septation |
| **Transposition of the Great Arteries** | Congenitally Corrected TGA | 🞎 | Status post - Congenitally corrected TGA repair, Atrial switch and ASO (double switch) |
| 🞎 | Status post - Congenitally corrected TGA repair, Atrial switch and Rastelli |
| 🞎 | Status post - Congenitally corrected TGA repair, VSD closure |
| 🞎 | Status post - Congenitally corrected TGA repair, VSD closure and LV to PA conduit |
| 🞎 | Status post - Congenitally corrected TGA repair, Other |
| Transposition of the Great Arteries | 🞎 | Status post - Arterial switch operation (ASO) |
| 🞎 | Status post - Arterial switch operation (ASO) and VSD repair |
| 🞎 | Status post - Arterial switch procedure + Aortic arch repair |
| 🞎 | Status post - Arterial switch procedure and VSD repair + Aortic arch repair |
| 🞎 | Status post - Senning |
| 🞎 | Status post - Mustard |
| 🞎 | Status post - Atrial baffle procedure, Mustard or Senning revision |
| 🞎 | Status post - Rastelli |
| 🞎 | Status post - REV |
| 🞎 | Status post - Aortic root translocation over left ventricle (Including Nikaidoh procedure) |
| 🞎 | Status post - TGA, Other procedures (Kawashima, LV-PA conduit, other) |
| **DORV** |  | 🞎 | Status post - DORV, Intraventricular tunnel repair |
| **DOLV** |  | 🞎 | Status post - DOLV repair |
| **Thoracic Arteries and Veins** | Coarctation of Aorta and Aortic arch hypoplasia | 🞎 | Status post - Coarctation repair, End to end |
| 🞎 | Status post - Coarctation repair, End to end, Extended |
| 🞎 | Status post - Coarctation repair, Subclavian flap |
| 🞎 | Status post - Coarctation repair, Patch aortoplasty |
| 🞎 | Status post - Coarctation repair, Interposition graft |
| 🞎 | Status post - Coarctation repair, Other |
| 🞎 | Status post - Coarctation repair + VSD repair |
| 🞎 | Status post - Aortic arch repair |
| 🞎 | Status post - Aortic arch repair + VSD repair |
| Coronary Artery Anomalies | 🞎 | Status post - Coronary artery fistula ligation |
| 🞎 | Status post - Anomalous origin of coronary artery from pulmonary artery repair |
| 🞎 | Status post - Coronary artery bypass |
| 🞎 | Status post - Anomalous aortic origin of coronary artery (AAOCA) repair |
| 🞎 | Status post - Coronary artery procedure, Other |
| Interrupted Arch  | 🞎 | Status post - Interrupted aortic arch repair |
| Patent Ductus Arteriosus | 🞎 | Status post - PDA closure, Surgical |
| 🞎 | Status post - PDA closure, Device |
| Vascular Rings and Slings | 🞎 | Status post - Vascular ring repair |
| 🞎 | Status post - Aortopexy |
| 🞎 | Status post - Pulmonary artery sling repair |
| Aortic Aneurysm  | 🞎 | Status post - Aortic aneurysm repair |
| Aortic Dissection  | 🞎 | Status post - Aortic dissection repair |
| **Thoracic and Mediastinal Disease** | Lung Disease | 🞎 | Status post - Lung biopsy |
| 🞎 | Status post - Transplant, lung(s) |
| 🞎 | Status post - Lung procedure, Other |
| Tracheal Stenosis  | 🞎 | Status post - Tracheal procedure |
| Chest Wall | 🞎 | Status post - Muscle flap, Trunk (i.e. intercostal, pectus, or serratus muscle) |
| 🞎 | Status post - Muscle flap, Trunk (i.e. latissimus dorsi) |
| 🞎 | Status post - Removal, Sternal wire |
| 🞎 | Status post - Rib excision, Complete |
| 🞎 | Status post - Rib excision, Partial |
| 🞎 | Status post - Sternal fracture, Open treatment |
| 🞎 | Status post - Sternal resection, Radical resection of the sternum |
| 🞎 | Status post - Sternal resection, Radical resection of the sternum with mediastinal lymphadenectomy |
| 🞎 | Status post - Tumor of chest wall, Excision including ribs |
| 🞎 | Status post - Tumor of chest wall, Excision including ribs, With reconstruction |
| 🞎 | Status post - Tumor of soft tissue of thorax, Excision of deep subfascial or intramuscular tumor |
| 🞎 | Status post - Tumor of soft tissue of thorax, Excision of subcutaneous tumor |
| 🞎 | Status post - Tumor of soft tissue of thorax, Radical resection |
| Neck | 🞎 | Status post - Hyoid myotomy and suspension |
| 🞎 | Status post - Muscle flap, Neck |
| 🞎 | Status post - Procedure on neck |
| 🞎 | Status post - Tumor of soft tissue of neck, Excision of deep subfascial or intramuscular tumor |
| 🞎 | Status post - Tumor of soft tissue of neck, Excision of subcutaneous tumor |
| 🞎 | Status post - Tumor of soft tissue of neck, Radical resection |
| Pectus Excavatum, Carinatum | 🞎 | Status post - Pectus bar removal |
| 🞎 | Status post - Pectus bar repositioning |
| 🞎 | Status post - Pectus repair, Minimally invasive repair (Nuss), With thoracoscopy |
| 🞎 | Status post - Pectus repair, Minimally invasive repair (Nuss), Without thoracoscopy |
| 🞎 | Status post - Pectus repair, Open repair |
| Thoracic Outlet | 🞎 | Status post - Division of scalenus anticus, With resection of a cervical rib |
| 🞎 | Status post - Division of scalenus anticus, Without resection of a cervical rib |
| 🞎 | Status post - Rib excision, Excision of a cervical rib |
| 🞎 | Status post - Rib excision, Excision of a cervical rib, With sympathectomy |
| 🞎 | Status post - Rib excision, Excision of first rib |
| 🞎 | Status post - Rib excision, Excision of first rib, With sympathectomy |
| Thorax | 🞎 | Status post - Procedure on thorax |
| **Electrophysiological** |   | 🞎 | Status post - Pacemaker implantation, Permanent |
| 🞎 | Status post - Pacemaker procedure |
| 🞎 | Status post - Explantation of pacing system |
| 🞎 | Status post - ICD (AICD) implantation |
| 🞎 | Status post - ICD (AICD) ([automatic] implantable cardioverter defibrillator) procedure |
| 🞎 | Status post - Arrhythmia surgery - atrial, Surgical Ablation |
| 🞎 | Status post - Arrhythmia surgery - ventricular, Surgical Ablation |
| **Interventional Cardiology Procedures** |   | 🞎 | Status post - Cardiovascular catheterization procedure, Diagnostic |
| 🞎 | Status post - Cardiovascular catheterization procedure, Diagnostic, Angiographic data obtained |
| 🞎 | Status post - Cardiovascular catheterization procedure, Diagnostic, Electrophysiology alteration |
| 🞎 | Status post - Cardiovascular catheterization procedure, Diagnostic, Hemodynamic alteration |
| 🞎 | Status post - Cardiovascular catheterization procedure, Diagnostic, Hemodynamic data obtained |
| 🞎 | Status post - Cardiovascular catheterization procedure, Diagnostic, Transluminal test occlusion |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Adjunctive therapy |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Balloon dilation |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Balloon valvotomy |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Coil implantation |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Device implantation |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Device implantation attempted |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Electrophysiological ablation |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Intravascular foreign body removal |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Perforation (establishing interchamber and/or intervessel communication) |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Septostomy |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Stent insertion |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Stent re-dilation |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Transcatheter Fontan completion |
| 🞎 | Status post - Cardiovascular catheterization procedure, Therapeutic, Transcatheter implantation of valve |
| **Palliative Procedures** |   | 🞎 | Status post - Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS) |
| 🞎 | Status post - Shunt, Systemic to pulmonary, Central (shunt from aorta) |
| 🞎 | Status post - Shunt, Systemic to pulmonary, Central (shunt from aorta) Central shunt with an end-to-side connection between the transected main pulmonary artery and the side of the ascending aorta (i.e. Mee shunt) |
| 🞎 | Status post - Shunt, Systemic to pulmonary, Other |
| 🞎 | Status post - Shunt, Ligation and takedown |
| 🞎 | Status post - Shunt, Reoperation |
| 🞎 | Status post - PA banding (PAB) |
| 🞎 | Status post - PA debanding |
| 🞎 | Status post - Damus-Kaye-Stansel procedure (DKS) (creation of AP anastomosis without arch reconstruction) |
| 🞎 | Status post - Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn) |
| 🞎 | Status post - Glenn (unidirectional cavopulmonary anastomosis) (unidirectional Glenn) |
| 🞎 | Status post - Bilateral bidirectional cavopulmonary anastomosis (BBDCPA) (bilateral bidirectional Glenn) |
| 🞎 | Status post - HemiFontan |
| 🞎 | Status post - Superior cavopulmonary anastomosis(es) (Glenn or HemiFontan) + Atrioventricular valvuloplasty |
| 🞎 | Status post - Superior Cavopulmonary anastomosis(es) + PA reconstruction |
| 🞎 | Status post - Hepatic vein to azygous vein connection, Direct |
| 🞎 | Status post - Hepatic vein to azygous vein connection, Interposition graft |
| 🞎 | Status post - Kawashima operation (superior cavopulmonary connection in setting of interrupted IVC with azygous continuation) |
| 🞎 | Status post - Palliation, Other |
| **Mechanical Support** |   | 🞎 | Status post - ECMO cannulation |
| 🞎 | Status post - ECMO decannulation |
| 🞎 | Status post - ECMO procedure |
| 🞎 | Status post - Intraaortic balloon pump (IABP) insertion |
| 🞎 | Status post - Right/left heart assist device procedure |
| 🞎 | Status post - VAD explantation |
| 🞎 | Status post - VAD implantation |
|  |  | 🞎 | Status post - VAD change out |
| **Anesthetic procedures** |   | 🞎 | Status post - Echocardiography procedure, Sedated transesophageal echocardiogram |
| 🞎 | Status post - Echocardiography procedure, Sedated transthoracic echocardiogram |
| 🞎 | Status post - Non-cardiovascular, Non-thoracic procedure on cardiac patient with cardiac anesthesia |
| 🞎 | Status post - Radiology procedure on cardiac patient, Cardiac Computerized Axial Tomography (CT Scan) |
| 🞎 | Status post - Radiology procedure on cardiac patient, Cardiac Magnetic Resonance Imaging (MRI) |
| 🞎 | Status post - Radiology procedure on cardiac patient, Diagnostic radiology |
| 🞎 | Status post - Radiology procedure on cardiac patient, Non-Cardiac Computerized Tomography (CT) on cardiac patient |
| 🞎 | Status post - Radiology procedure on cardiac patient, Non-cardiac Magnetic Resonance Imaging (MRI) on cardiac patient |
| 🞎 | Status post - Radiology procedure on cardiac patient, Therapeutic radiology |

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| **Miscellaneous Procedures** |   | 🞎 | Status post - Aneurysm, Ventricular, Right, Repair |
| 🞎 | Status post - Aneurysm, Ventricular, Left, Repair |
| 🞎 | Status post - Aneurysm, Pulmonary artery, Repair |
| 🞎 | Status post - Cardiac tumor resection |
| 🞎 | Status post - Pulmonary AV fistula repair/occlusion |
| 🞎 | Status post - Ligation, Pulmonary artery |
| 🞎 | Status post - Pulmonary embolectomy, Acute pulmonary embolus |
| 🞎 | Status post - Pulmonary embolectomy, Chronic pulmonary embolus |
| 🞎 | Status post - Pleural drainage procedure |
| 🞎 | Status post - Pleural procedure, Other |
| 🞎 | Status post - Ligation, Thoracic duct |
| 🞎 | Status post - Decortication |
| 🞎 | Status post - Esophageal procedure |
| 🞎 | Status post - Mediastinal procedure |
| 🞎 | Status post - Bronchoscopy |
| 🞎 | Status post - Diaphragm plication |
| 🞎 | Status post - Diaphragm procedure, Other |
| 🞎 | Status post - VATS (video-assisted thoracoscopic surgery) |
| 🞎 | Status post - Minimally invasive procedure |
| 🞎 | Status post - Bypass for noncardiac lesion |
| 🞎 | Status post - Delayed sternal closure |
| 🞎 | Status post - Mediastinal exploration |
| 🞎 | Status post - Sternotomy wound drainage |
| 🞎 | Status post - Intravascular stent removal |
| 🞎 | Status post - Thoracotomy, Other |
| 🞎 | Status post - Cardiotomy, Other |
| 🞎 | Status post - Cardiac procedure, Other |
| 🞎 | Status post - Thoracic and/or mediastinal procedure, Other |
| 🞎 | Status post - Peripheral vascular procedure, Other |
| 🞎 | Status post - Miscellaneous procedure, Other |
| 🞎 | Status post - Other procedure |

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| **PROCEDURES**  |
|  Select **ALL** procedures that apply. (↓) Procedure (930) | Circle the **ONE** PRIMARY procedure for this operation.PrimProc (940) |
| **Septal Defects** | ASD | 🞎 | PFO, Primary closure |
| 🞎 | ASD repair, Primary closure |
| 🞎 | ASD repair, Patch |
| 🞎 | ASD repair, Device |
| 🞎 | ASD repair, Patch + PAPVC repair |
| 🞎 | ASD, Common atrium (single atrium), Septation |
| 🞎 | ASD creation/enlargement |
| 🞎 | ASD partial closure |
| 🞎 | Atrial septal fenestration |
| 🞎 | Atrial fenestration closure |
| VSD | 🞎 | VSD repair, Primary closure |
| 🞎 | VSD repair, Patch |
| 🞎 | VSD repair, Device |
| 🞎 | VSD, Multiple, Repair |
| 🞎 | VSD creation/enlargement |
| 🞎 | Ventricular septal fenestration |
| AV Canal | 🞎 | AVC (AVSD) repair, Complete (CAVSD) |
| 🞎 | AVC (AVSD) repair, Intermediate (Transitional) |
| 🞎 | AVC (AVSD) repair, Partial (Incomplete) (PAVSD) |
| 🞎 | Valvuloplasty, Common atrioventricular valve |
| 🞎 | Valvuloplasty converted to valve replacement in the same operation, Common atrioventricular valve |
| 🞎 | Valve replacement, Common atrioventricular valve |
| AP Window  | 🞎 | AP window repair |
| 🞎 | Pulmonary artery origin from ascending aorta (hemitruncus) repair |
| Truncus Arteriosus | 🞎 | Truncus arteriosus repair |
| 🞎 | Valvuloplasty, Truncal valve |
| 🞎 | Valvuloplasty converted to valve replacement in the same operation, Truncal valve |
| 🞎 | Valve replacement, Truncal valve |
| 🞎 | Truncus + Interrupted aortic arch repair (IAA) repair |
| **Pulmonary Venous Anomalies** | Partial Anomalous Pulmonary Venous Connection | 🞎 | PAPVC repair |
| 🞎 | PAPVC, Scimitar, Repair |
| 🞎 | PAPVC repair, Baffle redirection to left atrium with systemic vein translocation (Warden) (SVC sewn to right atrial appendage) |
| Total Anomalous Pulmonary Venous Connection | 🞎 | TAPVC repair |
| 🞎 | TAPVC repair + Shunt - systemic-to-pulmonary |
| **Cor Triatriatum** |   | 🞎 | Cor triatriatum repair |
| **Pulmonary Venous Stenosis** |   | 🞎 | Pulmonary venous stenosis repair |
| **Systemic Venous Anomalies** | Anomalous Systemic Venous Connection | 🞎 | Atrial baffle procedure (non-Mustard, non-Senning) |
| 🞎 | Anomalous systemic venous connection repair |
| Systemic venous obstruction | 🞎 | Systemic venous stenosis repair |
| **Right Heart Lesions** | Tetralogy of Fallot | 🞎 | TOF repair, No Ventriculotomy |
| 🞎 | TOF repair, Ventriculotomy, Nontransanular patch |
| 🞎 | TOF repair, Ventriculotomy, Transanular patch |
| 🞎 | TOF repair, RV-PA conduit |
| 🞎 | TOF - AVC (AVSD) repair |
| 🞎 | TOF - Absent pulmonary valve repair |
| Pulmonary Atresia/VSD | 🞎 | Pulmonary atresia - VSD (including TOF, PA) repair |
| 🞎 | Pulmonary atresia - VSD – MAPCA repair, Complete single stage repair (1 stage that includes bilateral pulmonary unifocalization + VSD closure + RV to PA connection [with or without conduit]) |
| 🞎 | Pulmonary atresia - VSD – MAPCA repair, Status post prior complete unifocalization (includes VSD closure + RV to PA connection [with or without conduit]) |
| 🞎 | Pulmonary atresia - VSD – MAPCA repair, Status post prior incomplete unifocalization (includes completion of pulmonary unifocalization + VSD closure + RV to PA connection [with or without conduit]) |
| 🞎 | Unifocalization MAPCA(s), Bilateral pulmonary unifocalization - Complete unifocalization (all usable MAPCA[s] are incorporated) |
| 🞎 | Unifocalization MAPCA(s), Bilateral pulmonary unifocalization - Incomplete unifocalization (not all usable MAPCA[s] are incorporated) |
| 🞎 | Unifocalization MAPCA(s), Unilateral pulmonary unifocalization |
| 🞎 | Unifocalization MAPCA(s) |
|  | 🞎 | Occlusion of MAPCA(s) |
| Tricuspid Valve Disease and Ebstein’s Anomaly | 🞎 | Valvuloplasty, Tricuspid |
| 🞎 | Valvuloplasty converted to valve replacement in the same operation, Tricuspid |
| 🞎 | Ebstein's repair |
| 🞎 | Valve replacement, Tricuspid (TVR) |
| 🞎 | Valve closure, Tricuspid (exclusion, univentricular approach) |
| 🞎 | Valve excision, Tricuspid (without replacement) |
| 🞎 | Valve surgery, Other, Tricuspid |
| RVOT Obstruction, IVS Pulmonary Stenosis | 🞎 | RVOT procedure |
| 🞎 | 1 1/2 ventricular repair |
| 🞎 | PA, reconstruction (plasty), Main (trunk) |
| 🞎 | PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation) |
| 🞎 | PA, reconstruction (plasty), Branch, Peripheral (at or beyond the hilar bifurcation) |
| 🞎 | DCRV repair |
| Pulmonary Valve Disease | 🞎 | Valvuloplasty, Pulmonic |
| 🞎 | Valvuloplasty converted to valve replacement in the same operation, Pulmonic |
| 🞎 | Valve replacement, Pulmonic (PVR) |
| 🞎 | Valve excision, Pulmonary (without replacement) |
| 🞎 | Valve closure, Semilunar |
| 🞎 | Valve surgery, Other, Pulmonic |
| **Conduit operations** | Conduit operations | 🞎 | Conduit placement, RV to PA |
| 🞎 | Conduit placement, LV to PA |
| 🞎 | Conduit placement, Ventricle to aorta |
| 🞎 | Conduit placement, Other |
| Conduit Stenosis / Insufficiency | 🞎 | Conduit reoperation |
| **Left Heart Lesions**  | Aortic Valve Disease | 🞎 | Valvuloplasty, Aortic |
| 🞎 | Valvuloplasty converted to valve replacement in the same operation, Aortic |
| 🞎 | Valvuloplasty converted to valve replacement in the same operation, Aortic – with Ross procedure |
| 🞎 | Valvuloplasty converted to valve replacement in the same operation, Aortic – with Ross-Konno procedure |
| 🞎 | Valve replacement, Aortic (AVR) |
| 🞎 | Valve replacement, Aortic (AVR), Mechanical |
| 🞎 | Valve replacement, Aortic (AVR), Bioprosthetic |
| 🞎 | Valve replacement, Aortic (AVR), Homograft |
| 🞎 | Aortic root replacement, Bioprosthetic |
| 🞎 | Aortic root replacement, Mechanical |
| 🞎 | Aortic root replacement, Homograft |
| 🞎 | Aortic root replacement, Valve sparing |
| 🞎 | Ross procedure |
| 🞎 | Konno procedure |
| 🞎 | Ross-Konno procedure |
| 🞎 | Other annular enlargement procedure |
| 🞎 | Aortic stenosis, Subvalvar, Repair |
| 🞎 | Aortic stenosis, Subvalvar, Repair, With myectomy for IHSS |
| 🞎 | Aortic stenosis, Supravalvar, Repair |
| 🞎 | Valve surgery, Other, Aortic |
| Sinus of Valsalva Aneurysm | 🞎 | Sinus of Valsalva, Aneurysm repair |
| LV to Aorta Tunnel  | 🞎 | LV to aorta tunnel repair |
| Mitral Valve Disease | 🞎 | Valvuloplasty, Mitral |
| 🞎 | Valvuloplasty converted to valve replacement in the same operation, Mitral |
| 🞎 | Mitral stenosis, Supravalvar mitral ring repair |
| 🞎 | Valve replacement, Mitral (MVR) |
| 🞎 | Valve surgery, Other, Mitral |
| Hypoplastic Left Heart and Related malformations | 🞎 | Norwood procedure |
| 🞎 | HLHS biventricular repair |
|  | 🞎 | Conduit insertion right ventricle to pulmonary artery + Intraventricular tunnel left ventricle to neoaorta + arch reconstruction (Rastelli and Norwood type arch reconstruction) (Yasui) |
| **Hybrid** |  | 🞎 | Hybrid Approach "Stage 1", Application of RPA & LPA bands |
| 🞎 | Hybrid Approach "Stage 1", Stent placement in arterial duct (PDA) |
| 🞎 | Hybrid Approach "Stage 1", Stent placement in arterial duct (PDA) + application of RPA & LPA bands  |
| 🞎 | Hybrid approach "Stage 2", Aortopulmonary amalgamation + Superior Cavopulmonary anastomosis(es) + PA Debanding + Aortic arch repair (Norwood [Stage 1] + Superior Cavopulmonary anastomosis(es) + PA Debanding) |
| 🞎 | Hybrid approach "Stage 2", Aortopulmonary amalgamation + Superior Cavopulmonary anastomosis(es) + PA Debanding + Without aortic arch repair |
|  | 🞎 | Hybrid Approach, Transcardiac balloon dilatation |
| 🞎 | Hybrid Approach, Transcardiac transcatheter device placement |
| **Cardiomyopathy** |  | 🞎 | Transplant, Heart |
| 🞎 | Transplant, Heart and lung |
| 🞎 | Partial left ventriculectomy (LV volume reduction surgery) (Batista) |
| **Pericardial Disease** |  | 🞎 | Pericardial drainage procedure |
| 🞎 | Pericardiectomy |
| 🞎 | Pericardial procedure, Other |
| **Single Ventricle** |   | 🞎 | Fontan, Atrio-pulmonary connection |
| 🞎 | Fontan, Atrio-ventricular connection |
| 🞎 | Fontan, TCPC, Lateral tunnel, Fenestrated |
| 🞎 | Fontan, TCPC, Lateral tunnel, Nonfenestrated |
| 🞎 | Fontan, TCPC, External conduit, Fenestrated |
| 🞎 | Fontan, TCPC, External conduit, Nonfenestrated |
| 🞎 | Fontan, TCPC, Intra/extracardiac conduit, Fenestrated |
| 🞎 | Fontan, TCPC, Intra/extracardiac conduit, Nonfenestrated |
| 🞎 | Fontan revision or conversion (Re-do Fontan) |
| 🞎 | Fontan, Other |
| 🞎 | Fontan + Atrioventricular valvuloplasty |
| 🞎 | Ventricular septation |
| **Transposition of the Great Arteries** | Congenitally Corrected TGA | 🞎 | Congenitally corrected TGA repair, Atrial switch and ASO (double switch) |
| 🞎 | Congenitally corrected TGA repair, Atrial switch and Rastelli |
| 🞎 | Congenitally corrected TGA repair, VSD closure |
| 🞎 | Congenitally corrected TGA repair, VSD closure and LV to PA conduit |
| 🞎 | Congenitally corrected TGA repair, Other |
| Transposition of the Great Arteries | 🞎 | Arterial switch operation (ASO) |
| 🞎 | Arterial switch operation (ASO) and VSD repair |
| 🞎 | Arterial switch procedure + Aortic arch repair |
| 🞎 | Arterial switch procedure and VSD repair + Aortic arch repair |
| 🞎 | Senning |
| 🞎 | Mustard |
| 🞎 | Atrial baffle procedure, Mustard or Senning revision |
| 🞎 | Rastelli |
| 🞎 | REV |
| 🞎 | Aortic root translocation over left ventricle (Including Nikaidoh procedure) |
| 🞎 | TGA, Other procedures (Kawashima, LV-PA conduit, other) |
| **DORV** |  | 🞎 | DORV, Intraventricular tunnel repair |
| **DOLV** |  | 🞎 | DOLV repair |
| **Thoracic Arteries and Veins** | Coarctation of Aorta and Aortic arch hypoplasia | 🞎 | Coarctation repair, End to end |
| 🞎 | Coarctation repair, End to end, Extended |
| 🞎 | Coarctation repair, Subclavian flap |
| 🞎 | Coarctation repair, Patch aortoplasty |
| 🞎 | Coarctation repair, Interposition graft |
| 🞎 | Coarctation repair, Other |
| 🞎 | Coarctation repair + VSD repair |
| 🞎 | Aortic arch repair |
| 🞎 | Aortic arch repair + VSD repair |
| Coronary Artery Anomalies | 🞎 | Coronary artery fistula ligation |
| 🞎 | Anomalous origin of coronary artery from pulmonary artery repair |
| 🞎 | Coronary artery bypass |
| 🞎 | Anomalous aortic origin of coronary artery (AAOCA) repair |
| 🞎 | Coronary artery procedure, Other |
| Interrupted Arch  | 🞎 | Interrupted aortic arch repair |
| Patent Ductus Arteriosus | 🞎 | PDA closure, Surgical |
| 🞎 | PDA closure, Device |
| Vascular Rings and Slings | 🞎 | Vascular ring repair |
| 🞎 | Aortopexy |
| 🞎 | Pulmonary artery sling repair |
| Aortic Aneurysm  | 🞎 | Aortic aneurysm repair |
| Aortic Dissection  | 🞎 | Aortic dissection repair |
| **Thoracic and Mediastinal Disease** | Lung Disease | 🞎 | Lung biopsy |
| 🞎 | Transplant, lung(s) |
| 🞎 | Lung procedure, Other |
| Tracheal Stenosis  | 🞎 | Tracheal procedure |
| Chest Wall | 🞎 | Muscle flap, Trunk (i.e. intercostal, pectus, or serratus muscle) |
| 🞎 | Muscle flap, Trunk (i.e. latissimus dorsi) |
| 🞎 | Removal, Sternal wire |
| 🞎 | Rib excision, Complete |
| 🞎 | Rib excision, Partial |
| 🞎 | Sternal fracture, Open treatment |
| 🞎 | Sternal resection, Radical resection of the sternum |
| 🞎 | Sternal resection, Radical resection of the sternum with mediastinal lymphadenectomy |
| 🞎 | Tumor of chest wall, Excision including ribs |
| 🞎 | Tumor of chest wall, Excision including ribs, With reconstruction |
| 🞎 | Tumor of soft tissue of thorax, Excision of deep subfascial or intramuscular tumor |
| 🞎 | Tumor of soft tissue of thorax, Excision of subcutaneous tumor |
| 🞎 | Tumor of soft tissue of thorax, Radical resection |
|  |
| Neck | 🞎 | Hyoid myotomy and suspension |
| 🞎 | Muscle flap, Neck |
| 🞎 | Procedure on neck |
| 🞎 | Tumor of soft tissue of neck, Excision of deep subfascial or intramuscular tumor |
| 🞎 | Tumor of soft tissue of neck, Excision of subcutaneous tumor |
| 🞎 | Tumor of soft tissue of neck, Radical resection |
| Pectus Excavatum, Carinatum | 🞎 | Pectus bar removal |
| 🞎 | Pectus bar repositioning |
| 🞎 | Pectus repair, Minimally invasive repair (Nuss), With thoracoscopy |
| 🞎 | Pectus repair, Minimally invasive repair (Nuss), Without thoracoscopy |
| 🞎 | Pectus repair, Open repair |
| Thoracic Outlet | 🞎 | Division of scalenus anticus, With resection of a cervical rib |
| 🞎 | Division of scalenus anticus, Without resection of a cervical rib |
| 🞎 | Rib excision, Excision of a cervical rib |
| 🞎 | Rib excision, Excision of a cervical rib, With sympathectomy |
| 🞎 | Rib excision, Excision of first rib |
| 🞎 | Rib excision, Excision of first rib, With sympathectomy |
| Thorax | 🞎 | Procedure on thorax |
| **Electrophysiological** |   | 🞎 | Pacemaker implantation, Permanent |
| 🞎 | Pacemaker procedure |
| 🞎 | Explantation of pacing system |
| 🞎 | ICD (AICD) implantation |
| 🞎 | ICD (AICD) ([automatic] implantable cardioverter defibrillator) procedure |
| 🞎 | Arrhythmia surgery - atrial, Surgical Ablation |
| 🞎 | Arrhythmia surgery - ventricular, Surgical Ablation |
| **Interventional Cardiology Procedures** |   | 🞎 | Cardiovascular catheterization procedure, Diagnostic |
| 🞎 | Cardiovascular catheterization procedure, Diagnostic, Angiographic data obtained |
| 🞎 | Cardiovascular catheterization procedure, Diagnostic, Electrophysiology alteration |
| 🞎 | Cardiovascular catheterization procedure, Diagnostic, Hemodynamic alteration |
| 🞎 | Cardiovascular catheterization procedure, Diagnostic, Hemodynamic data obtained |
| 🞎 | Cardiovascular catheterization procedure, Diagnostic, Transluminal test occlusion |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Adjunctive therapy |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Balloon dilation |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Balloon valvotomy |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Coil implantation |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Device implantation |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Device implantation attempted |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Electrophysiological ablation |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Intravascular foreign body removal |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Perforation (establishing interchamber and/or intervessel communication) |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Septostomy |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Stent insertion |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Stent re-dilation |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Transcatheter Fontan completion |
| 🞎 | Cardiovascular catheterization procedure, Therapeutic, Transcatheter implantation of valve |
| **Palliative Procedures** |   | 🞎 | Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS) |
| 🞎 | Shunt, Systemic to pulmonary, Central (shunt from aorta) |
| 🞎 | Shunt, Systemic to pulmonary, Central (shunt from aorta) Central shunt with an end-to-side connection between the transected main pulmonary artery and the side of the ascending aorta (i.e. Mee shunt) |
| 🞎 | Shunt, Systemic to pulmonary, Other |
| 🞎 | Shunt, Ligation and takedown |
| 🞎 | Shunt, Reoperation |
| 🞎 | PA banding (PAB) |
| 🞎 | PA debanding |
| 🞎 | Damus-Kaye-Stansel procedure (DKS) (creation of AP anastomosis without arch reconstruction) |
| 🞎 | Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn) |
| 🞎 | Glenn (unidirectional cavopulmonary anastomosis) (unidirectional Glenn) |
| 🞎 | Bilateral bidirectional cavopulmonary anastomosis (BBDCPA) (bilateral bidirectional Glenn) |
| 🞎 | HemiFontan |
| 🞎 | Superior cavopulmonary anastomosis(es) (Glenn or HemiFontan) + Atrioventricular valvuloplasty |
| 🞎 | Superior Cavopulmonary anastomosis(es) + PA reconstruction |
| 🞎 | Hepatic vein to azygous vein connection, Direct |
| 🞎 | Hepatic vein to azygous vein connection, Interposition graft |
| 🞎 | Kawashima operation (superior cavopulmonary connection in setting of interrupted IVC with azygous continuation) |
| 🞎 | Palliation, Other |
| **Mechanical Support** |   | 🞎 | ECMO cannulation |
| 🞎 | ECMO decannulation |
| 🞎 | ECMO procedure |
| 🞎 | Intraaortic balloon pump (IABP) insertion |
| 🞎 | Right/left heart assist device procedure |
| 🞎 | VAD explantation |
| 🞎 | VAD implantation |
|  |  | 🞎 | VAD change out |
| **Anesthetic procedures** |   | 🞎 | Echocardiography procedure, Sedated transesophageal echocardiogram |
| 🞎 | Echocardiography procedure, Sedated transthoracic echocardiogram |
| 🞎 | Non-cardiovascular, Non-thoracic procedure on cardiac patient with cardiac anesthesia |
| 🞎 | Radiology procedure on cardiac patient, Cardiac Computerized Axial Tomography (CT Scan) |
| 🞎 | Radiology procedure on cardiac patient, Cardiac Magnetic Resonance Imaging (MRI) |
| 🞎 | Radiology procedure on cardiac patient, Diagnostic radiology |
| 🞎 | Radiology procedure on cardiac patient, Non-Cardiac Computerized Tomography (CT) on cardiac patient |
| 🞎 | Radiology procedure on cardiac patient, Non-cardiac Magnetic Resonance Imaging (MRI) on cardiac patient |
| 🞎 | Radiology procedure on cardiac patient, Therapeutic radiology |

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| **Miscellaneous Procedures** |   | 🞎 | Aneurysm, Ventricular, Right, Repair |
| 🞎 | Aneurysm, Ventricular, Left, Repair |
| 🞎 | Aneurysm, Pulmonary artery, Repair |
| 🞎 | Cardiac tumor resection |
| 🞎 | Pulmonary AV fistula repair/occlusion |
| 🞎 | Ligation, Pulmonary artery |
| 🞎 | Pulmonary embolectomy, Acute pulmonary embolus |
| 🞎 | Pulmonary embolectomy, Chronic pulmonary embolus |
| 🞎 | Pleural drainage procedure |
| 🞎 | Pleural procedure, Other |
| 🞎 | Ligation, Thoracic duct |
| 🞎 | Decortication |
| 🞎 | Esophageal procedure |
| 🞎 | Mediastinal procedure |
| 🞎 | Bronchoscopy |
| 🞎 | Diaphragm plication |
| 🞎 | Diaphragm procedure, Other |
| 🞎 | VATS (video-assisted thoracoscopic surgery) |
| 🞎 | Minimally invasive procedure |
| 🞎 | Bypass for noncardiac lesion |
| 🞎 | Delayed sternal closure |
| 🞎 | Mediastinal exploration |
| 🞎 | Sternotomy wound drainage |
| 🞎 | Intravascular stent removal |
| 🞎 | Thoracotomy, Other |
| 🞎 | Cardiotomy, Other |
| 🞎 | Cardiac procedure, Other |
| 🞎 | Thoracic and/or mediastinal procedure, Other |
| 🞎 | Peripheral vascular procedure, Other |
| 🞎 | Miscellaneous procedure, Other |
| 🞎 | Organ procurement |
|  |  | 🞎 | Other procedure |
| **Operation Canceled or Aborted** | Canceled operation | 🞎 | Operation canceled before skin incision |
|  | Aborted operation | 🞎 | Operation aborted after skin incision |

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| **PROCEDURE SPECIFIC FACTORS** |
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| **Indicate if any of the following is the Primary procedure** PSFPrimProc (949)🞎 None of the listed procedures below *(if none, skip to Operative section)* |
| *If one of the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 VSD repair, Primary closure |
| 🞎 VSD repair, Patch |
| 🞎 VSD repair, Device |
|  | Apical VSD PSFApicalVSD (950) | 🞎 Yes 🞎 No |
|  | Straddling AV valve PSFStradAVVal (951) | 🞎 Yes 🞎 No |
| *If the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 TOF - AVC (AVSD) repair |
|  | Major coronary crossing RVOT - Coronary anomaly restricting RVOT enlargement PSFMajCorRVOT(952) | 🞎 Yes 🞎 No |
|  | VSD, Multiple, Repair PSFVSDMultRep (953) | 🞎 Yes 🞎 No |
|  | Restrictive VSD PSFRestrictVSD (954) | 🞎 Yes 🞎 No |
|  | Hypoplastic branch pulmonary arteries (diminished pulmonary vascular bed) PSFHypoBrPulmArt (955) | 🞎 Yes 🞎 No |
|  | AV Valve regurgitation grade 3 and 4 (Severe AV Valve regurgitation) PSFAVRegurg34 (956) | 🞎 Yes 🞎 No |
|  | Double orifice left atrioventricular valve PSFDoubOrif (957)  | 🞎 Yes 🞎 No |
|  | Single papillary muscle in the left ventricle and/or parachute left atrioventricular valve PSFSingPap (958) | 🞎 Yes 🞎 No |
|  | Hypoplastic posterior mural leaflet PSFHypoPostMLeaf (959) | 🞎 Yes 🞎 No |
|  | Atrioventricular septal defect with ventricular imbalance: dominant left ventricle, hypoplastic right ventriclePSFASDomLeft (960) | 🞎 Yes 🞎 No |
|  | Atrioventricular septal defect with ventricular imbalance: dominant right ventricle, hypoplastic left ventriclePSFASDDomRight (961) | 🞎 Yes 🞎 No |
|  | Common atrioventricular valve with unbalanced commitment of valve to left ventricle PSFCAVLeft (962) | 🞎 Yes 🞎 No |
|  | Common atrioventricular valve with unbalanced commitment of valve to right ventricle PSFCAVRight (963) | 🞎 Yes 🞎 No |
| *If one of the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 TOF repair, No ventriculotomy |
| 🞎 TOF repair, Ventriculotomy, Nontransanular patch |
| 🞎 TOF repair, Ventriculotomy, Transanular patch |
| 🞎 TOF repair, RV-PA conduit |
| 🞎 TOF - Absent pulmonary valve repair |
| 🞎 Pulmonary atresia - VSD - MAPCA repair, Complete single stage repair (1-stage that includes bilateral pulmonary unifocalization + VSD closure + RV to PA connection [with or without conduit]) |
| 🞎 Pulmonary atresia - VSD - MAPCA repair, Status post prior complete unifocalization (includes VSD closure + RV to PA connection[with or without conduit]) |
| 🞎 Pulmonary atresia - VSD - MAPCA repair, Status post prior incomplete unifocalizarion (includes completion of pulmonary unifocalization + VSD closure + RV to PA connection [with or without conduit]) |
| 🞎 Pulmonary atresia - VSD (including TOF, PA) repair |
|  | Major coronary crossing RVOT - Coronary anomaly restricting RVOT enlargement PSFMajCorRVOT(952) | 🞎 Yes 🞎 No |
|  | VSD, Multiple, Repair PSFVSDMultRep (953) | 🞎 Yes 🞎 No |
|  | Restrictive VSD PSFRestrictVSD (954) | 🞎 Yes 🞎 No |
|  | Hypoplastic branch pulmonary arteries (diminished pulmonary vascular bed) PSFHypoBrPulmArt (955) | 🞎 Yes 🞎 No |
| *If one of the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 AVC (AVSD) repair, Complete (CAVSD) |  |
|   | AV Valve regurgitation grade 3 and 4 (Severe AV Valve regurgitation) PSFAVRegurg34 (956) | 🞎 Yes 🞎 No |
|   | Double orifice left atrioventricular valve PSFDoubOrif (957)  | 🞎 Yes 🞎 No |
|  | Single papillary muscle in the left ventricle and/or parachute left atrioventricular valve PSFSingPap (958) | 🞎 Yes 🞎 No |
|   | Hypoplastic posterior mural leaflet PSFHypoPostMLeaf (959) | 🞎 Yes 🞎 No |
|   | Atrioventricular septal defect with ventricular imbalance: dominant left ventricle and hypoplastic right ventricle PSFASDomLeft (960) | 🞎 Yes 🞎 No |
|   | Atrioventricular septal defect with ventricular imbalance: dominant right ventricle and hypoplastic left ventricle PSFASDDomRight (961) | 🞎 Yes 🞎 No |
|  | Common atrioventricular valve with unbalanced commitment of valve to left ventricle PSFCAVLeft (962) | 🞎 Yes 🞎 No |
|  | Common atrioventricular valve with unbalanced commitment of valve to right ventricle PSFCAVRight (963) | 🞎 Yes 🞎 No |
|  |  |  |
| *If one of the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn) |
| 🞎 Glenn (unidirectional cavopulmonary anastomosis) (unidirectional Glenn) |
| 🞎 Bilateral bidirectional cavopulmonary anastomosis (BBDCPA) (bilateral bidirectional Glenn) |
| 🞎 HemiFontan |
| 🞎 Superior Cavopulmonary anastomosis(es) (Glenn or HemiFontan) + Atrioventricular valvuloplasty |
| 🞎 Superior Cavopulmonary anastomosis(es) + PA reconstruction |
|  | AV Valve regurgitation grade 3 and 4 (Severe AV Valve regurgitation) PSFAVRegurg34 (956) | 🞎 Yes 🞎 No |
|  | Moderate to severe systemic ventricular dysfunction PSFModSevSVD (964) | 🞎 Yes 🞎 No |
|  | Hypoplastic branch pulmonary arteries (diminished pulmonary vascular bed) PSFHypoBrPulmArt (955) | 🞎 Yes 🞎 No |
|  | Systemic ventricular outflow tract obstruction (subaortic obstruction) PSFSysVentObs (965) | 🞎 Yes 🞎 No |
|  | Ventricular dominance PSFVentDom(966):  | 🞎 Left Ventricular dominance |  |  |
|  |  | 🞎 Right Ventricular dominance |  |  |
|  |  | 🞎 Balanced |  |  |
|  |  | 🞎 Indeterminate Ventricular dominance |  |  |
| *If one of the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 Fontan, Atrio-pulmonary connection |
| 🞎 Fontan, Atrio-ventricular connection |
| 🞎 Fontan, TCPC, Lateral tunnel, Fenestrated |
| 🞎 Fontan, TCPC, Lateral tunnel, Nonfenestrated |
| 🞎 Fontan, TCPC, External conduit, Fenestrated |
| 🞎 Fontan, TCPC, External conduit, Nonfenestrated |
| 🞎 Fontan, TCPC, Intra/extracardiac conduit, Fenestrated |
| 🞎 Fontan, TCPC, Intra/extracardiac conduit, Nonfenestrated |
| 🞎 Fontan, Other |
| 🞎 Fontan + Atrioventricular valvuloplasty |
| 🞎 Fontan revision or conversion (Re-do Fontan) |
|  | AV Valve regurgitation grade 3 and 4 (Severe AV Valve regurgitation) PSFAVRegurg34 (956) | 🞎 Yes 🞎 No |
|  | Moderate to severe systemic ventricular dysfunction PSFModSevSVD (964) | 🞎 Yes 🞎 No |
|  | Hypoplastic branch pulmonary arteries (diminished pulmonary vascular bed) PSFHypoBrPulmArt (955) | 🞎 Yes 🞎 No |
|  | Systemic ventricular outflow tract obstruction (subaortic obstruction) PSFSysVentObs (965) | 🞎 Yes 🞎 No |
|  | Ventricular dominance PSFVentDom(966):  | 🞎 Left Ventricular dominance |  |
|  |  | 🞎 Right Ventricular dominance |  |
|  |  | 🞎 Balanced |  |
|  |  | 🞎 Indeterminate Ventricular dominance |  |
| *If one of the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 Arterial switch operation (ASO) |
| 🞎 Arterial switch procedure + Aortic arch repair |
|   | Posterior coronary loop: circumflex coming off the RCA PSFPostLoopCirc (970) | 🞎 Yes 🞎 No |
|   | Posterior coronary loop: left trunk coming off the RCA PSFPostLoopLeftTrunc (971) | 🞎 Yes 🞎 No |
|   | Double coronary loops: inverted origin of right & left coronary arteries PSFDoubleLoops (972) | 🞎 Yes 🞎 No |
|   | Single coronary ostium PSFSingOst (973) | 🞎 Yes 🞎 No |
|   | Intramural coronary PSFIntramuralCor (974) | 🞎 Yes 🞎 No |
|   | Large infundibular coronary artery from LAD PSFLgInfundArt (975) | 🞎 Yes 🞎 No |
|   | Malaligned commissures PSFMalComm (976) | 🞎 Yes 🞎 No |
|   | Take down of a commissure PSFTakeDownComm (977) | 🞎 Yes 🞎 No |
|   | Aorto-pulmonary diameter mismatch PSFAortoPulMis (978) | 🞎 Yes 🞎 No |
|   | Side by side vessels PSFSidebySide (979) | 🞎 Yes 🞎 No |
|   | Posterior native aorta PSFPostNatAorta (980) | 🞎 Yes 🞎 No |
|   | Subaortic obstruction/ conal septum malalignment PSFSubAObs (981) | 🞎 Yes 🞎 No |
|  | Bicuspid native aortic valve (Bicuspid neopulmonary valve) PSFBicusNatAortic (982) | 🞎 Yes 🞎 No |
|  | Bicuspid native pulmonary valve (Bicuspid neoaortic valve) PSFBicusNatPulm (983) | 🞎 Yes 🞎 No |
| *If one of the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 Arterial switch operation (ASO) and VSD repair |
| 🞎 Arterial switch procedure and VSD repair + Aortic arch repair |
|   | Posterior coronary loop: circumflex coming off the RCA PSFPostLoopCirc (970) | 🞎 Yes 🞎 No |
|   | Posterior coronary loop: left trunk coming off the RCA PSFPostLoopLeftTrunc (971) | 🞎 Yes 🞎 No |
|   | Double coronary loops: inverted origin of right & left coronary arteries PSFDoubleLoops (972) | 🞎 Yes 🞎 No |
|   | Single coronary ostium PSFSingOst (973) | 🞎 Yes 🞎 No |
|   | Intramural coronary PSFIntramuralCor (974) | 🞎 Yes 🞎 No |
|   | Large infundibular coronary artery from LAD PSFLgInfundArt (975) | 🞎 Yes 🞎 No |
|   | Malaligned commissures PSFMalComm (976) | 🞎 Yes 🞎 No |
|   | Take down of a commissure PSFTakeDownComm (977) | 🞎 Yes 🞎 No |
|   | Aorto-pulmonary diameter mismatch PSFAortoPulMis (978) | 🞎 Yes 🞎 No |
|   | Side by side vessels PSFSidebySide (979) | 🞎 Yes 🞎 No |
|   | Posterior native aorta PSFPostNatAorta (980) | 🞎 Yes 🞎 No |
|   | Subaortic obstruction/ conal septum malalignment PSFSubAObs (981) | 🞎 Yes 🞎 No |
|   | Bicuspid native aortic valve (Bicuspid neopulmonary valve) PSFBicusNatAortic (982) | 🞎 Yes 🞎 No |
|   | Bicuspid native pulmonary valve (Bicuspid neoaortic valve) PSFBicusNatPulm (983) | 🞎 Yes 🞎 No |
|  | Apical VSD PSFApicalVSD (950) | 🞎 Yes 🞎 No |
|  | Straddling AV valve PSFStradAVVal (951) | 🞎 Yes 🞎 No |
| *If one of the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 Truncus arteriosus repair |
| 🞎 Truncus + Interrupted aortic arch repair (IAA) repair |
|   | Truncus type 3 ( PA Branches from PDA or descending aorta) PSFTruncType3 (984) | 🞎 Yes 🞎 No |
|  | Abnormal coronary PSFAbnormalCor (985) | 🞎 Yes 🞎 No |
|  | Truncal valve regurgitation (moderate to severe) PSFTruncValRegurg (986) | 🞎 Yes 🞎 No |
| *If the following is the Primary procedure, specify whether the procedure specific factors apply* |
| 🞎 Norwood procedure |
|   | Source of pulmonary blood flow: Shunt - systemic artery-to-pulmonary artery PSFSrcPulFloShuntSys (987) | 🞎 Yes 🞎 No |
|   | Source of pulmonary blood flow: Shunt - ventricle-to-pulmonary artery PSFSrcPulFloShuntVent (988) | 🞎 Yes 🞎 No |
|   | Source of pulmonary blood flow: Superior caval vein-to-pulmonary artery PSFSrcPulFloSuper (989) | 🞎 Yes 🞎 No |
|   | Ascending aorta < 2 mm PSFAscAortaLT2 (990) | 🞎 Yes 🞎 No |
|   | Aortic atresia PSFAortAtresia (991) | 🞎 Yes 🞎 No |
|   | Aortic stenosis PSFAortSten (992) | 🞎 Yes 🞎 No |
|   | Mitral atresia PSFMitralAtresia (993) | 🞎 Yes 🞎 No |
|   | Mitral stenosis PSFMitralSten (994) | 🞎 Yes 🞎 No |
|   | Sinusoids PSFSinusoids (995) | 🞎 Yes 🞎 No |
|   | Intact atrial septum PSFIntactAtrSep (996) | 🞎 Yes 🞎 No |
|   | Obstructed pulmonary venous return with severely restrictive ASD PSFObsPulVenRet (997) | 🞎 Yes 🞎 No |
|   | AV Valve regurgitation grade 3 and 4 (Severe AV Valve regurgitation) PSFAVRegurg34 (956)  | 🞎 Yes 🞎 No |
|   | Aberrant right subclavian artery PSFAberrantRtSubclav (998) | 🞎 Yes 🞎 No |
|   | Ventricular dominance PSFVentDom(966):  | 🞎 Left Ventricular dominance |  |
|   |  | 🞎 Right Ventricular dominance |  |
|   |  | 🞎 Balanced |  |
|  |  | 🞎 Indeterminate Ventricular dominance |  |

 |
|  |
| **OPERATIVE**  |
| **Procedure Location:** ProcLoc (1000) | 🞎 Cardiac OR  | 🞎 ICU  | 🞎 SICU  |
| 🞎 General OR | 🞎 CVICU | 🞎 Radiology Suite |
| 🞎 Hybrid Suite  | 🞎 NICU  | 🞎 Procedure Room |
| 🞎 Cath lab | 🞎 PICU | 🞎 Other |
| **Status:** Status (1001) | 🞎 Elective  | 🞎 Urgent | 🞎 Emergent | 🞎 Salvage |
| **Operation Type**: OpType (1002) | 🞎 CPB | 🞎 No CPB Cardiovascular  | 🞎 ECMO |
| 🞎 Thoracic  | 🞎 Interventional Cardiology | 🞎 VAD w/ CPB  |
| 🞎 VAD w/out CPB  | 🞎 NonCardiac/NonThoracic Procedure w/ Anesthesia  | 🞎 Other |
| **Near InfraredSpectroscopy (NIRS) Cerebral Metrics Used:** NIRSCerUsed (1005)  | 🞎 Yes 🞎 No |
|  *If NIRSCerUsed is Yes→* | NIRS Cerebral Metrics Used Preoperatively NIRSCerPre (1006) | 🞎 Yes 🞎 No |
|  | NIRS Cerebral Metrics Used Intraoperatively NIRSCerIntra (1007) | 🞎 Yes 🞎 No |
|  | NIRS Cerebral Metrics Used Postoperatively NIRSCerPost (1008) | 🞎 Yes 🞎 No |
| **Near InfraredSpectroscopy (NIRS) Somatic Metrics Used:** NIRSSomUsed(1009)  | 🞎 Yes 🞎 No |
|  *If NIRSSomUsed is Yes→* | NIRS Somatic Metrics Used Preoperatively NIRSSomPre (1010) | 🞎 Yes 🞎 No |
|  | NIRS Somatic Metrics Used Intraoperatively NIRSSomIntra (1011) | 🞎 Yes 🞎 No |
|  | NIRS Somatic Metrics Used Postoperatively NIRSSomPost (1012) | 🞎 Yes 🞎 No |
|  |
| OR Entry Time: *(00:00 – 23:59)* \_\_ \_\_: \_\_ \_\_ OREntryT (1013) | Skin Incision Start Time: *(00:00 – 23:59)* \_\_ \_\_: \_\_ \_\_ SIStartT (1014) |
| Endotracheal Intubation Performed: 🞎 Yes 🞎 No*(If Yes ↓)* Intubate (1015)  |
|  | Intubation Date/Time: IntubateDT (1016)*(mm/dd/yyyy 00:00 – 23:59)* \_ \_ / \_ \_ / \_ \_ \_ \_ \_ \_:\_ \_ | Initial Extubation Date/Time: ExtubateDT (1017)*(mm/dd/yyyy 00:00 – 23:59)* \_ \_ / \_ \_ / \_ \_ \_ \_ \_ \_:\_ \_ |
|  | Extubated in OR: ExtubInOR (1018) 🞎 Yes 🞎 No |  |
|  | Re-Intubated After Initial Postoperative Extubation: 🞎 Yes 🞎 No*(If Yes ↓)* ReIntubate (1019)  |
|  |  | Final Extubation Date/Time: *(mm/dd/yyyy 00:00 – 23:59)* \_ \_ / \_ \_ / \_ \_ \_ \_ \_ \_:\_ \_ FinExtubDT (1020) |
|  |
| Time of Skin Closure: *(00:00 – 23:59)* \_ \_:\_ \_ SIStopT (1021) | OR Exit Time: *(00:00 – 23:59)* \_ \_:\_ \_ORExitT (1022) | Extended Through Midnight: 🞎 Yes 🞎 No MultiDay (1023)  |
| ***If Op type is: “NonCardiac/NonThoracic Procedure w/Anesthesia” or “Interventional Cardiology” → Skip to Complications section. However, if the procedure was performed by a surgeon participant in the STS CHSD, enter the surgeon’s name and NPI.*** |
| Surgeon: Surgeon (1030) | Surgeon NPI: SurgNPI (1031) | Taxpayer Identification Number: TIN (1032) |
| Reoperation Within This Admission: ReOpInAdm (1080) 🞎 Yes – Planned reoperation 🞎 Yes – Unplanned reoperation 🞎 No |
| Number of Prior Cardiothoracic Operations: PrvCtOpN (1090) | Number of Prior CPB Cardiothoracic Operations: PrvOCtOpN (1100) |
| *(If operation type is No CPB Cardiovascular→)* Cross Clamp Time – No CPB: *(minutes):* XClampTmNC (1130) |
| *(If operation type is CPB or VAD w/ CPB↓)* |
|  | CPB Blood Prime*:* CPBPrimed (1140) | 🞎 Yes 🞎 No | CPB Time *(min):*\_\_\_\_\_CPBTm (1150) | Cross Clamp Time - CPB:*(min):\_\_\_\_\_\_\_*XClampTm (1160) | Circulatory Arrest Time *(min):\_\_\_\_\_\_* DHCATm (1170) |
|  | Patient Temperature Monitoring Site : | (If Yes, Lowest Core Temperature recorded at site): |
|  | Bladder: TempSiteBla (1180)  | 🞎 Yes 🞎 No  | *(If Yes →)* | \_\_\_\_\_ *°C* LowCTmpBla (1190) |
|  | Esophageal: TempSiteEso (1200)  | 🞎 Yes 🞎 No  | *(If Yes →)* | \_\_\_\_\_ *°C* LowCTmpEso (1210) |
|  | Nasopharyngeal: TempSiteNas (1220) | 🞎 Yes 🞎 No  | *(If Yes →)* | \_\_\_\_\_ *°C* LowCTmpNas (1230) |
|  | Rectal: TempSiteRec (1240)  | 🞎 Yes 🞎 No  | *(If Yes →)* | \_\_\_\_\_ *°C* LowCTmpRec (1250) |
|  | Tympanic: TempSiteTym (1260)  | 🞎 Yes 🞎 No | *(If Yes →)* | \_\_\_\_\_ *°C* LowCTmpTym (1270) |
|  | Other: TempSiteOth (1280) | 🞎 Yes 🞎 No  | *(If Yes →)* | \_\_\_\_\_ *°C* LowCTmpOth (1290) |
|  | Cooling Time: *(minutes)* CoolTime (1300) **\_\_\_\_\_\_\_\_\_\_\_\_\_**  | Rewarming Time: *(minutes)* RewarmTime (1310) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
|  | Cerebral Perfusion Utilized: CPerfUtil (1320) 🞎 Yes 🞎 No *(If Yes ↓)*  |
|  | Cerebral Perfusion Time: \_\_\_\_\_\_\_\_ *(minutes)* CPerfTime (1330) |
|  | Cerebral Perfusion Cannulation Site:  | Innominate Artery CPerfCanInn (1340) | 🞎 Yes 🞎 No  | Right Subclavian CPerfCanRSub(1350)  | 🞎 Yes 🞎 No |
|  |  | Right Axillary Artery CPerfCanRAx (1360)  | 🞎 Yes 🞎 No  | Right Carotid Artery CPerfCanRCar (1370)  | 🞎 Yes 🞎 No |
|  |  | Left Carotid Artery CPerfCanLCar (1380)  | 🞎 Yes 🞎 No  | Superior Vena Cava CPerfCanSVC (1390)  | 🞎 Yes 🞎 No |
|  | Cerebral Perfusion Periods: CPerfPer (1400) \_\_\_\_\_\_\_\_  |
|  | Cerebral Perfusion Flow Rate: CPerfFlow (1410) \_\_\_\_\_\_\_\_ *(mL/kg) per minute* |
|  | Cerebral Perfusion Temperature: CPerfTemp (1420) \_\_\_\_\_\_\_ *°C* |
|  |  |  |  |
|  | Arterial Blood Gas Management During Cooling:ABldGasMgt (1430) | 🞎 Alpha STAT  | 🞎 pH STAT  |
|  |  | 🞎 pHSTAT cooling/Alpha STAT rewarming  | 🞎 Other Combination |
|  | Hematocrit Prior to Circulatory Arrest or Cerebral Perfusion: HCTPriCircA (1440) \_\_\_\_\_\_\_\_ |
|  | Cardioplegia Delivery: CplegiaDeliv (1450)  | 🞎 None | 🞎 Antegrade | 🞎 Retrograde | 🞎 Both |
|  | *If CPlegiaDeliv is Antegrade, Retrograde or Both ↓* |
|  |  | Cardioplegia Type: CPlegiaType (1460) | 🞎 Blood  | 🞎 Crystalloid | 🞎 Both | 🞎 Other |
|  |
|  | Cardioplegia Solution: CPlegiaSolution (1470) | 🞎 del Nido | 🞎 Celsior |
|  |  | 🞎 Custodiol / Bretschneider (HTK) | 🞎 Roe’s Solution |
|  |  | 🞎 Buckberg | 🞎 Microplegia with Potassium |
|  |  | 🞎 Plegisol / St. Thomas | 🞎 Microplegia with Adenocaine |
|  |  | 🞎 University of Wisconsin | 🞎 Other |
|  | Cardioplegia Number of Doses:CPlegiaDose(1490) **\_\_\_\_\_\_\_\_\_\_\_** |
|  |  |
|  | Hematocrit - First after initiating CPB: HCTFirst (1640) | **\_\_\_\_\_\_\_** | Ultrafiltration performed After CPB:Ultrafiltration (1670) |
|  | Hematocrit - Last Measured During CPB: HCTLast (1650) | **\_\_\_\_\_\_\_** |  | 🞎 No |
|  | Hematocrit – Post CPB, Post Protamine: HCTPost (1660) | **\_\_\_\_\_\_\_** |  | 🞎 Yes, Modified Ultrafiltration (MUF) |
|  |  |  |  | 🞎 Yes, Conventional Ultrafiltration (CUF) |
|  |  |  | 🞎 Yes, MUF and CUF |
|  |  |
| Pulmonary Vascular Resistance Measured: 🞎 Yes 🞎 No PVRMeas (1770) |
| *(If Yes and WeightKg ≥40 →)*PVR: \_\_\_\_\_ *(Wood units)* PVR (1780) |
| *(If Yes and WeightKg <40 →)*PVR Index: \_\_\_\_\_ *(Wood units x m2)* PVRI (1790)  |
| Intraop Blood Products Used: 🞎 Yes 🞎 No IBldProd (2450)  |
|  | *(If No →)* Intraop Blood Products Refused: IBldProdRef (2460) 🞎 Yes 🞎 No |
|  | *(If Yes ↓)* |
|  |  | Red Blood CellsIBdRBC (2470) | 🞎 Yes 🞎 No | Fresh Frozen Plasma IBdFFP (2510) | 🞎 Yes 🞎 No |
|  |  | CryoprecipitateIBdCryo (2550) | 🞎 Yes 🞎 No | Platelets IBdPlat (2590) | 🞎 Yes 🞎 No |
|  |  | Whole BloodIBdWB (2630) | 🞎 Yes 🞎 No | Factor VIIa IBdFVlla (2680) | 🞎 Yes 🞎 No |
|  |  *If Whole Blood is Yes ↓* |
|  |  | Fresh Whole Blood IBdWBFresh (2640) | 🞎 Yes 🞎 No |
| Intraop Medications:  |
| Aprotinin: IMedAprot (2700)  | 🞎 Yes 🞎 No  |  | Desmopressin: IMedDesmo (2740) | 🞎 Yes 🞎 No  |
| Epsilon Amino-Caproic Acid: IMedEACA (2720) | 🞎 Yes 🞎 No  |  | Tranexamic Acid: IMedTran (2760)  | 🞎 Yes 🞎 No  |
| **CABG PROCEDURES** |
| Coronary Artery Bypass (CAB): OpCAB (2780) | 🞎 Yes 🞎 No  | *(If Yes ↓)* |
|  | Number of Distal Arterial Anast:DistArt (2790) **\_\_\_\_\_\_\_\_\_\_** | Number of Distal Vein Anast:DistVein (2800) **\_\_\_\_\_\_\_\_\_\_** |
|  | Internal Mammary Artery (IMA) Used: IMAArtUs (2850) | 🞎 Left IMA | 🞎 Right IMA |
|  |  | 🞎 Both IMAs | 🞎 No IMA |

|  |
| --- |
| **VALVE PROCEDURES** |
| Valve Operation: OpValve (2940)  | 🞎 Yes 🞎 No  | *(If Yes ↓)* |
|  |  |  |
|  | Valve Device Explanted and/or Implanted:ValExImp (3140) | 🞎 No | 🞎 Yes, Explanted | 🞎 Yes, Implanted | 🞎 Yes, Explanted and Implanted |
| *If Yes, Explanted orYes, explanted and Implanted, complete one column per explant ↓* |
| **EXPLANT(S)** |
|  | **Valve Explant #1** | **2nd Explant: 🞎 Yes 🞎 No**ValEx2 (3160) | **3rd Explant: 🞎 Yes 🞎 No**ValEx3 (3180) | **4th Explant: 🞎 Yes 🞎 No**ValEx4 (3200) |
|  |  |  *If Yes ↓ (if no skip to implant)* | *If Yes ↓ (if no skip to implant)* |  *If Yes ↓ (if no skip to implant)* |
|  | Valve Explant Type #1ValExType1 (3150) | Valve Explant Type #2ValExType2 (3170) | Valve Explant Type #3ValExType3 (3190) | Valve Explant Type #4ValExType4 (3210) |
|  | 🞎 Mechanical | 🞎 Mechanical | 🞎 Mechanical | 🞎 Mechanical |
|  | 🞎 Bioprosthetic | 🞎 Bioprosthetic | 🞎 Bioprosthetic | 🞎 Bioprosthetic |
|  | 🞎 Homograft/Allograft | 🞎 Homograft/Allograft | 🞎 Homograft/Allograft | 🞎 Homograft/Allograft |
|  | 🞎 Autograft | 🞎 Autograft | 🞎 Autograft | 🞎 Autograft |
|  | 🞎 Annuloplasty Band/Ring | 🞎 Annuloplasty Band/Ring | 🞎 Annuloplasty Band/Ring | 🞎 Annuloplasty Band/Ring |
|  | 🞎 Mitral Clip | 🞎 Mitral Clip | 🞎 Mitral Clip | 🞎 Mitral Clip |
|  | 🞎 Surgeon Fashioned | 🞎 Surgeon Fashioned | 🞎 Surgeon Fashioned | 🞎 Surgeon Fashioned |
|  | 🞎 Other | 🞎 Other | 🞎 Other | 🞎 Other |
|  *If Yes, Implanted or Yes, Explanted and Implanted, complete one column per implant ↓* |
| **IMPLANT(S)** |
|  | **Valve Implant Location #1**ValImpLoc1 (3220) | **2nd Implant: 🞎 Yes 🞎 No**ValImp2 (3270) | **3rd Implant: 🞎 Yes 🞎 No**ValImp3 (3330) | **4th Implant: 🞎 Yes 🞎 No**ValImp4 (3390) |
|  *If Yes ↓ (if no skip to VAD proc)* | *If Yes ↓ (if no skip to VAD proc)* |  *If Yes ↓ (if no skip to VAD proc)* |
|  |  | Valve Implant Location #2ValImpLoc2 (3280) | Valve Implant Location #3ValImpLoc3 (3340) | Valve Implant Location #4ValImpLoc4 (3400) |
|  | 🞎 Aortic  | 🞎 Aortic | 🞎 Aortic | 🞎 Aortic |
|  | 🞎 Mitral | 🞎 Mitral | 🞎 Mitral | 🞎 Mitral |
|  | 🞎 Tricuspid | 🞎 Tricuspid | 🞎 Tricuspid | 🞎 Tricuspid |
|  | 🞎 Pulmonic | 🞎 Pulmonic | 🞎 Pulmonic | 🞎 Pulmonic |
|  | 🞎 Common AV | 🞎 Common AV | 🞎 Common AV | 🞎 Common AV |
|  | 🞎 Truncal | 🞎 Truncal | 🞎 Truncal | 🞎 Truncal |
|  |  |  |  |  |
|  | Valve Implant Type #1ValImpType1 (3230) | Valve Implant Type #2ValImpType2 (3290) | Valve Implant Type #3ValImpType3 (3350) | Valve Implant Type #4ValImpType4 (3410) |
|  | 🞎 Surgeon Fashioned | 🞎 Surgeon Fashioned | 🞎 Surgeon Fashioned | 🞎 Surgeon Fashioned |
|  | 🞎 Autograft | 🞎 Autograft | 🞎 Autograft | 🞎 Autograft |
|  | 🞎 Commercially supplied | 🞎 Commercially supplied | 🞎 Commercially supplied | 🞎 Commercially supplied |
|  | *If Surgeon fashioned ↓* | *If Surgeon fashioned ↓* | *If Surgeon fashioned ↓* | *If Surgeon fashioned ↓* |
|  |  | Material #1:ValImpSFMat1 (3240) |  | Material #2:ValImpSFMat2 (3300) |  | Material #3:ValImpSFMat3 (3360) |  | Material #4:ValImpSFMat4 (3420) |
|  |  | 🞎 PTFE (Gore-Tex) |  | 🞎 PTFE (Gore-Tex) |  | 🞎 PTFE (Gore-Tex) |  | 🞎 PTFE (Gore-Tex) |
|  |  | 🞎 Pericardium |  | 🞎 Pericardium |  | 🞎 Pericardium |  | 🞎 Pericardium |
|  |  | 🞎 Other |  | 🞎 Other |  | 🞎 Other |  | 🞎 Other |
|  | *If Commercially Supplied↓* | *If Commercially Supplied↓* | *If Commercially Supplied↓* | *If Commercially Supplied↓* |
|  |  | Model #1:\_\_\_\_\_\_\_\_ValImpComMod1 (3250) |  | Model #2:\_\_\_\_\_\_\_\_ ValImpComMod2 (3310) |  | Model #3: \_\_\_\_\_\_\_\_ValImpComMod3 (3370) |  | Model #4: \_\_\_\_\_\_\_\_ValImpComMod4 (3430) |
|  |  | Device Size #1: \_\_\_\_ValImpComSz1 (3260) |  | Device Size #2: \_\_\_\_ValImpComSz2 (3320) |  | Device Size #3: \_\_\_\_ValImpComSz3 (3380) |  | Device Size #4: \_\_\_\_ValImpComSz4 (3440) |
|  |  |  |  |  |  |  |  |  |
| **VAD PROCEDURES** |
| VAD Explanted and/or Implanted:VADExImp (3460) | 🞎 No | 🞎 Yes, Explanted | 🞎 Yes, Implanted | 🞎 Yes, Explanted and Implanted |
| *If Implanted or Explanted and Implanted ↓* |
|  | Indication: VADInd (3500) | 🞎 Bridge to Transplantation | 🞎 Bridge to Recovery | 🞎 Destination |
|  |  |  | 🞎 Postcardiotomy Ventricular failure | 🞎 Device malfunction | 🞎 End of Life |
|  | Implant Type: VImpTy (3560) | 🞎 RVAD | 🞎 LVAD | 🞎 BiVAD | 🞎 TAH (total artificial heart) |
|  | Product: VProdTy (3570) | (choose from VAD List) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| *If Explanted or Explanted and Implanted ↓* |
|  | Explant Reason: VExpRsn (3610) | 🞎 Cardiac Transplant | 🞎 Recovery | 🞎 Device Transfer |
|  |  | 🞎 Device Related Infection | 🞎 Device Malfunction | 🞎 End of Life |
|  |
| *If Explanted, Implanted or Explanted and Implanted indicate whether VAD related complications occurred↓* |
|  | Intracranial Bleed:PVCmpBld (3850) | 🞎 Yes 🞎 No | Embolic Stroke:PVCmpESt (3860) | 🞎 Yes 🞎 No | Driveline/Cannula Infection:PVCmpDCI (3870) | 🞎 Yes 🞎 No |
|  | Pump Pocket Infection:PVCmpPPI (3880) | 🞎 Yes 🞎 No | Endocarditis:PVCmpEnd (3890) | 🞎 Yes 🞎 No | Device Malfunction:PVCmpMal (3900) | 🞎 Yes 🞎 No |
|  | Bowel Obstruction:PVCmpBO (3910) | 🞎 Yes 🞎 No | Hemolysis:PVCmpHemo (3920) | 🞎 Yes 🞎 No |  |  |
| **POSTOPERATIVE** |
| Blood Products Used Postoperatively: 🞎 Yes 🞎 No BldProd (3940) |
|  | *(If Yes ↓)* |  |  |  |  |  |
|  | Red Blood Cells BdRBC (3950) | 🞎 Yes 🞎 No | Fresh Frozen Plasma BdFFP (3990) | 🞎 Yes 🞎 No | Cryoprecipitate BdCryo (4030) | 🞎 Yes 🞎 No |
|  | Platelets BdPlat (4070) | 🞎 Yes 🞎 No | Whole Blood BdWB (4110) | 🞎 Yes 🞎 No | *If Whole Blood Yes→* | Fresh Whole Blood:BdWBFresh (4120) | 🞎 Yes 🞎 No |
|  | Factor VIIa BdFVIIa (4160) | 🞎 Yes 🞎 No |  |  |  |  |

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| **COMPLICATIONS** Complication (4200)**Assign complication(s) to the operation that is most closely associated with the complication** |
| 🞎 No complications *OR select ALL that apply: (↓)* |
| 🞎 | No complications during the intraop or postop time periods (No complications prior to discharge & no complications within ≤ 30 days of surgery) |
| 🞎 | Intraoperative death or intraprocedural death |
| 🞎 | Unplanned readmission to the hospital within 30 days of surgery or intervention |
| 🞎 | Multi-System Organ Failure (MSOF) = Multi-Organ Dysfunction Syndrome (MODS) |
| 🞎 | Unexpected Cardiac arrest during or following procedure (Periop/Periprocedural = Intraop/Intraprocedural and/or Postop/Postprocedural) |
| 🞎 | Cardiac dysfunction resulting in low cardiac output |
| 🞎 | Cardiac failure (severe cardiac dysfunction) |
| 🞎 | Endocarditis-postprocedural infective endocarditis |
| 🞎 | Pericardial effusion, Requiring drainage |
| 🞎 | Pulmonary hypertension |
| 🞎 | Pulmonary hypertensive crisis (PA pressure > systemic pressure) |
| 🞎 | Pulmonary vein obstruction |
| 🞎 | Systemic vein obstruction |
| 🞎 | Bleeding, Requiring reoperation |
| 🞎 | Sternum left open, Planned |
| 🞎 | Sternum left open, Unplanned |
| 🞎 | Unplanned cardiac reoperation during the postoperative or postprocedural time period, exclusive of reoperation for bleeding |
| 🞎 | Unplanned interventional therapeutic cardiovascular catheterization procedure during the postoperative or postprocedural time period |
| 🞎 | Unplanned non-cardiac reoperation during the postoperative or postprocedural time period |
| 🞎 | Postoperative/Postprocedural mechanical circulatory support (IABP, VAD, ECMO, or CPS) |
| 🞎 | Arrhythmia requiring drug therapy |
| 🞎 | Arrhythmia requiring electrical cardioversion or defibrillation |
| 🞎 | Arrhythmia necessitating pacemaker, Permanent pacemaker |
| 🞎 | Arrhythmia necessitating pacemaker, Temporary pacemaker |
| 🞎 | Chylothorax |
| 🞎 | Pleural effusion, Requiring drainage  |
| 🞎 | Pneumonia |
| 🞎 | Pneumothorax, Requiring drainage or evacuation |
| 🞎 | Postoperative/Postprocedural respiratory insufficiency requiring mechanical ventilatory support > 7 days |
| 🞎 | Postoperative/Postprocedural respiratory insufficiency requiring reintubation |
| 🞎 | Respiratory failure, Requiring tracheostomy |
| 🞎 | Renal failure - acute renal failure, Acute renal failure requiring dialysis at the time of hospital discharge |
| 🞎 | Renal failure - acute renal failure, Acute renal failure requiring temporary dialysis with the need for dialysis not present at hospital discharge |
| 🞎 | Renal failure - acute renal failure, Acute renal failure requiring temporary hemofiltration with the need for dialysis not present at hospital discharge |
| 🞎 | Sepsis |
| 🞎 | Neurological deficit, Neurological deficit persisting at discharge |
| 🞎 | Neurological deficit, Transient neurological deficit not present at discharge |
| 🞎 | Paralyzed diaphragm (possible phrenic nerve injury) |
| 🞎 | Peripheral nerve injury, Neurological deficit persisting at discharge |
| 🞎 | Seizure |
| 🞎 | Spinal cord injury, Neurological deficit persisting at discharge |
| 🞎 | Stroke |
| 🞎 | Subdural Bleed |
| 🞎 | Intraventricular hemorrhage (IVH) > grade 2 |
| 🞎 | Vocal cord dysfunction (possible recurrent laryngeal nerve injury) |
| 🞎 | Wound dehiscence (sterile) |
| 🞎 | Wound dehiscence (sterile), Median sternotomy |
| 🞎 | Wound infection |
| 🞎 | Wound infection-Deep wound infection |
| 🞎 | Wound infection-Mediastinitis |
| 🞎 | Wound infection-Superficial wound infection |
| 🞎 | Anesthesia – related complication |
| 🞎 | Complication of cardiovascular catheterization procedure |
| 🞎 | Other complication |
| 🞎 | Other operative/procedural complication |
| **DISCHARGE/READMISSION** |
| Date of Hospital Discharge: HospDischDt (4220) *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_  |
| Mortality Status at Hospital Discharge: MtHospDisStat (4230) 🞎 Alive 🞎 Dead |
|  *(If Alive →)* | Discharge Location: DisLoctn (4240) 🞎 Home 🞎 Other Acute Care Center 🞎 Other Chronic Care Center |
| VAD Discharge Status: VADDiscS(4245) 🞎 No VAD this admission 🞎 Discharged w/ VAD 🞎 VAD removed prior to discharge 🞎 Expired in Hospital |
| Date of Database Discharge: DBDischDt (4250) *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_  |
| Mortality Status at Database Discharge: MtDBDisStat (4260) 🞎 Alive 🞎 Dead 🞎 Unknown *(If Alive ↓)* |
|  Readmission within 30 days: 🞎 Yes 🞎 No*(If Yes →)* Readmission Date: *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_ Readmit30 (4270) ReadmitDt (4280) |
|  *(If Yes →)* Primary Readmission Reason *(select one↓):*ReadmitRsn (4290) |
|  🞎 Thrombotic Complication  | 🞎 Neurologic Complication  |
|  🞎 Hemorrhagic Complication | 🞎 Respiratory Complication/Airway Complication |
|  🞎 Stenotic Complication | 🞎 Septic/Infectious Complication |
|  🞎 Arrhythmia | 🞎 Cardiovascular Device Complications |
|  🞎 Congestive Heart Failure | 🞎 Residual/Recurrent Cardiovascular Defects |
|  🞎 Embolic Complication | 🞎 Failure to Thrive |
|  🞎 Cardiac Transplant Rejection | 🞎 VAD Complications  |
|  🞎 Myocardial Ischemia | 🞎 Gastrointestinal Complication |
|  🞎 Renal Failure | 🞎 Other Cardiovascular Complication |
|  🞎 Pericardial Effusion and/or Tamponade | 🞎 Other - Readmission related to this index operation |
|  🞎 Pleural Effusion | 🞎 Other - Readmission not related to this index operation |
|  |
| Status at 30 days after surgery: Mt30Stat (4300) 🞎 Alive 🞎 Dead 🞎 Unknown |
| 30 Day Status Method of Verification: 🞎 Evidence of life or death in Medical Record 🞎 Contact w/ patient or family Mt30StatMeth (4310) 🞎 Contact w/ medical provider 🞎 Office visit to provider ≥ 30 days post op 🞎 SSDMF 🞎Other |
| Mortality Assigned to this Operation: MortCase (4320) 🞎 Yes 🞎 No Operative Mortality: MtOpD (4330) 🞎 Yes 🞎 No |
| CHSS Eligibility:CHSSElig (4331)  | 🞎 Eligible & Enrolled 🞎 Eligible, but declined enrollment 🞎 Eligible, but not invited to participate 🞎 Eligible, but institution not CHSS participant 🞎 Eligible, but not enrolled, other reason 🞎 Not Eligible |
|  |

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| **PATIENT PROCESS MEASURES**  |
| *(if Op Type CPB or No CPB Cardiovascular 🡫)* |  |
| Patient care discussed at preop multidisciplinary planning conference: 🞎 Yes 🞎 No CareDiscussed(4340) |
| *If No →* | Reason care was not discussed:CareDiscussedRsn (4350) | 🞎 Urgent/Emergent/Salvage Case | 🞎 Neonate admitted between conferences |
|  |  | 🞎 Program does not routinely discuss all cases | 🞎 Program does not have regular conferences |
|  |  | 🞎 Other |  |
| Transesophageal Echo (TEE) available for case: TEEAvail (4370) | 🞎 Yes 🞎 No |
| *If Yes →* | Intraop TEE performed:TEEEpicEchoPerf (4380) | 🞎 Yes 🞎 No |
| Pre-op Antibiotic Prophylaxis given: PreopAntiProph (4400) | 🞎 Yes 🞎 No  |
|  |
| *If Yes →* | CephalosporinPreopAntiProphCeph (4410)  | 🞎 Yes 🞎 No | Penicillin or related medPreopAntiProphPen (4420) | 🞎 Yes 🞎 No | AminoglycosidePreopAntiProphAmino (4430) | 🞎 Yes 🞎 No |
|  | VancomycinPreopAntiProphVan (4440) | 🞎 Yes 🞎 No | OtherPreopAntiProphOth (4450) | 🞎 Yes 🞎 No |  |  |
|  | Antibiotic Start time: *(00:00 – 23:59)* **\_ \_:\_ \_** PreopAntiProphTime (4470) |
|  |
| Conventional Pre-procedure Time Out: ConvTimeOut (4480) | 🞎 Yes 🞎 No |
| Surgeon shares essential elements of operative plan: PreProcBrief (4490) | 🞎 Yes 🞎 No |
| Postprocedure debriefing: PostProcDebrief (4500) | 🞎 Yes 🞎 No |
| Hand-off protocol at the time of transfer to ICU: HandoffProtocol (4510) | 🞎 Yes- all required team members present |  |
|  | 🞎 Yes- not all required team members present |  |
|  | 🞎 No |  |  |
| *If yes-not all required team members present →* | Anesthesiologist: HandoffAnesth (4520) | 🞎 Attended hand-off  | 🞎 Did not attend hand-off |
|  | Surgeon: HandoffSurg (4530) | 🞎 Attended hand-off  | 🞎 Did not attend hand-off |
|  | ICU MD: HandoffPhysStaff (4540) | 🞎 Attended hand-off  | 🞎 Did not attend hand-off |
|  | Nurse: HandoffNursing (4550) | 🞎 Attended hand-off  | 🞎 Did not attend hand-off |
| Patient died or had major postoperative complication(s): PostOpComp (4560) | 🞎 Yes 🞎 No |
| *If Yes →* | Management and outcomes reviewed: PostOpReview (4570) | 🞎 Reviewed at conference |
|  |  | 🞎 Scheduled for review at conference |
|  |  | 🞎 Not reviewed or scheduled for review |
|  |  | 🞎 Program does not have scheduled conferences |
|  | *If Reviewed →* | Review Date: *(mm/dd/yyyy)* \_\_ \_\_ / \_\_ \_\_ / \_\_ \_\_ \_\_ \_\_PostOpReviewDate (4580)  |  |

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| **ANESTHESIA** (for sites participating in anesthesiology component) |
| **ANESTHESIA Administrative** |
|  |
| Primary Anesthesiologist Attending: PrimAnesName (4590) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  |
| Primary Anesthesiologist National Provider Identifier: PrimAnesNPI (4600) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Secondary Anesthesiologist Attending: SecAnes (4610) | 🞎 Yes 🞎 No |  |
| Fellow or Resident Present FelRes (4630) | 🞎 Yes 🞎 No |  |
| Mid-Level provider CRNA/AA Present CRNA (4640) | 🞎 Yes 🞎 No |  |
| **ANESTHESIA Preoperative**  |
| Preoperative Medication Category: PreopMedCat (4700) |
| 🞎 | None *(If not None, select all pre-operative medications that apply: ↓)* |  |
| 🞎 | ACE Inhibitors | 🞎  | Milrinone |  |
| 🞎 | Amiodarone | 🞎  | Narcotics |  |
| 🞎 | Anti-reflux Medications (H2 antagonists, PPI, propulsives) | 🞎  | Nitric Oxide |  |
| 🞎 | Anti-seizure medications | 🞎  | Nitroglycerin |  |
| 🞎 | Aspirin | 🞎  | Nitroprusside |  |
| 🞎 | Benzodiazepines | 🞎  | Norepinephrine (Levophed) |  |
| 🞎 | Beta Blockers | 🞎  | PDE-5 Inhibitors (e.g., Sildenafil) |  |
| 🞎 | Birth Control (Oral, IM) | 🞎  | Platelet inhibitors other than Aspirin (e.g., Plavix) |  |
| 🞎 | Bronchodilators, Inhaled | 🞎  | Prostacyclin (e.g., Flolan, Remodulin) |  |
| 🞎 | Calcium Channel Blockers | 🞎  | Prostaglandin |  |
| 🞎 | Calcium Chloride infusion | 🞎  | Psychiatric Medications (including ADHD and antidepressants) |  |
| 🞎 | Coumadin | 🞎 | Statins |  |
| 🞎 | Digoxin | 🞎 | Steroids (oral / IV) |  |
| 🞎 | Direct Thrombin Inhibitors (e.g., argatroban) | 🞎 | Thyroid Hormone |  |
| 🞎 | Diuretics | 🞎 | Transplant Rejection Inhibition Meds (other than steroids) |  |
| 🞎 | Dobutamine | 🞎 | Vasopressin |  |
| 🞎 | Dopamine | 🞎 | Antiarrhythmics not otherwise listed |  |
| 🞎 | Endothelin Antagonist (e.g., Bosentan) | 🞎 | Inotropes not otherwise listed |  |
| 🞎 | Epinephrine | 🞎 | Vasodilators not otherwise listed |  |
| 🞎 | Heparin | 🞎 | Vasoconstrictors not otherwise listed |  |
| 🞎 | Heparin, Low molecular weight | 🞎 | Other |  |
| 🞎 | Insulin |  |  |  |
| Preoperative Sedation PreopSed (4710) | 🞎 Yes 🞎 No  |  |
|  | *(If Yes→)* | Preoperative Sedation Route PreopSedRte (4720) | 🞎 IM 🞎 IV 🞎 Nasal 🞎 PO (Oral) 🞎 Rectal |
|  | *(If Yes, select all pre-operative sedation drugs that apply: ↓)* |  |
|  | Atropine PreopSedDrugAtro (4730) | 🞎 Yes 🞎 No | Ketamine PreopSedDrugKet (4770) | 🞎 Yes 🞎 No |
|  | Demerol PreopSedDrugDem (4740) | 🞎 Yes 🞎 No | Lorazepam PreopSedDrugLoraz (4780) | 🞎 Yes 🞎 No |
|  | Dexmedetomidine PreopSedDrugDex(4741) | 🞎 Yes 🞎 No | Midazolam PreopSedDrugMidaz (4790) | 🞎 Yes 🞎 No |
|  | Diazepam PreopSedDrugDiaz (4750) | 🞎 Yes 🞎 No | Morphine PreopSedDrugMorph (4800) | 🞎 Yes 🞎 No |
|  | Glycopyrrolate PreopSedDrugGlyco (4760) | 🞎 Yes 🞎 No | Pentobarbital PreopSedDrugPent (4810) | 🞎 Yes 🞎 No |
|  |  |  |  |  |
| Preoperative Oxygen Saturation: PreopO2Sat (4820) \_\_\_\_\_\_\_\_\_ % |  |
| Preoperative Oxygen Supplementation PreopOxygen (4830) | 🞎 Yes 🞎 No |  |
| Date and Time of Transport to Procedure Location Or Anesthesia Start Time: *mm/ dd/ yyyy hh : mm* \_ \_ / \_ \_ / \_ \_ \_ \_ \_ \_:\_ \_ PLocTransDT (4840)  |
| **ANESTHESIA Monitoring** |
| Arterial LineArtLine (4850) | 🞎 Yes 🞎 No | *(If Yes →)*Type: *(Select all that apply)* |  |  |
|  | Radial ArtLineTypeRad (4860)  | 🞎 Yes 🞎 No | Brachial ArtLineTypeBrach (4870)  | 🞎 Yes 🞎 No |
|  | Axillary ArtLineTypeAx (4880)  | 🞎 Yes 🞎 No | Femoral ArtLineTypeFem (4890)  | 🞎 Yes 🞎 No |
|  | Ulnar ArtLineTypeUlnar (4900)  | 🞎 Yes 🞎 No | Dorsalis Pedis ArtLineTypeDors (4910) | 🞎 Yes 🞎 No |
|  | Posterior Tibial ArtLineTypePost (4920)  | 🞎 Yes 🞎 No | Umbilical ArtLineTypeCent (4930) | 🞎 Yes 🞎 No |
|  |
| Cutdown Cutdown (4940) | 🞎 Yes 🞎 No | *(If Yes →)*Type: *(Select all that apply)* |  |  |  |
|  | Radial CutdownRad (4950)  | 🞎 Yes 🞎 No | Femoral CutdownFem (4960)  | 🞎 Yes 🞎 No |
|  | Ulnar CutdownUln (4970)  | 🞎 Yes 🞎 No | Other CutdownOth (4980) | 🞎 Yes 🞎 No |
|  |
| Percutaneous Central Pressure PercCentPress (4990) | 🞎 Yes 🞎 No | *(If Yes →)* Location: *(Select all that apply)* |
|  | Right Internal Jugular PCPLocRJug (5000)  | 🞎 Yes 🞎 No | Left Internal Jugular PCPLocLJug (5010)  | 🞎 Yes 🞎 No |
|  | Right Subclavian PCPLocRSub (5020)  | 🞎 Yes 🞎 No | Left Subclavian PCPLocLSub (5030)  | 🞎 Yes 🞎 No |
|  | Right Femoral Vein PCPLocRFem (5040)  | 🞎 Yes 🞎 No | Left Femoral Vein PCPLocLFem (5050)  | 🞎 Yes 🞎 No |
|  | Other PCPLocOth (5060) | 🞎 Yes 🞎 No |  |  |
|  |  |  |  |  |
| CVP Placed by Anesthesia CVPPlaced (5070) | 🞎 Yes 🞎 No |  |
| Swan-Ganz Catheter SGCath (5080) | 🞎 Yes 🞎 No |  |
| Oximetric Central Line (ScVO2) ScVO2 (5090) | 🞎 Yes 🞎 No |  |
| Ultrasound Guidance Used for Line Placement: UltraDopGuide (5100) | 🞎 None🞎 Arterial line | 🞎 Central venous line🞎 Both arterial & venous lines |
|  |
| Neurologic Monitoring NeuroMonitor (5110) | 🞎 Yes 🞎 No |  |
|  | *(If Yes →)*  | Bispectral Index NeuroMonBIS (5130)Transcranial Doppler NeuroMonTCD (5140)NIRS (Cerebral) NeuroMonNIRS (5141)Other NeuroMonOth (5150) | 🞎 Yes 🞎 No🞎 Yes 🞎 No🞎 Yes 🞎 No🞎 Yes 🞎 No |
| Lowest Recorded Intraoperative Temperature: LowIntraopTemp (5160) | \_\_\_\_\_\_\_\_\_ *° C* |  |
| Lowest Intraoperative Temperature Site: IntraopTempSite (5170) | 🞎 Nasal 🞎 Esophageal 🞎 Bladder 🞎 Rectal 🞎 Axillary 🞎 Skin 🞎 Tympanic 🞎Other |
| Transesophageal Echocardiography TEE (5180) | 🞎 Yes 🞎 No |  |  |
|  |  |  |  |
| **ANESTHESIA Anesthetic Technique** |
| Date and Time of Induction: *mm/ dd/ yyyy hh : mm* \_ \_ / \_ \_ / \_ \_ \_ \_ \_ \_:\_ \_ InductionDT (5190)   |
| Induction Type: |  |
|  | Inhalation IndTypeInh (5200)  | 🞎 Yes 🞎 No | *(If Yes →)*  | Sevoflurane IndAgentInhalSevo (5220) | 🞎 Yes 🞎 No |
|  |  |  |  | Isoflurane IndAgentInhalIso (5230)  | 🞎 Yes 🞎 No |
|  | Intravenous IndTypeIV (5240)  | 🞎 Yes 🞎 No | *(If Yes →)*  | Sodium Thiopental IndAgentIVSodT (5260) | 🞎 Yes 🞎 No |
|  |  |  |  | Ketamine IndAgentIVKet (5270) | 🞎 Yes 🞎 No |
|  |  |  |  | Etomidate IndAgentIVEtom (5280) | 🞎 Yes 🞎 No |
|  |  |  |  | Propofol IndAgentIVProp (5290) | 🞎 Yes 🞎 No |
|  |  |  |  | Fentanyl IndAgentIVFent (5300) | 🞎 Yes 🞎 No |
|  |  |  |  | Midazolam IndAgentIVMid (5310) | 🞎 Yes 🞎 No |
|  |  |  |  | Dexmedetomidine IndAgentIVDex (5320) | 🞎 Yes 🞎 No |
|  |  |  |  | Sufentanil IndAgentIVSuf (5330) | 🞎 Yes 🞎 No |
|  |  |  |  | Remifentanil IndAgentIVRem (5340) | 🞎 Yes 🞎 No |
|  | Intramuscular (IM) IndTypeIM (5350)  | 🞎 Yes 🞎 No | *(If Yes →)*  | Ketamine IndAgentIMKet (5370)  | 🞎 Yes 🞎 No |
|  |  |  |  | Midazolam IndAgentIMMid (5380) | 🞎 Yes 🞎 No |
| Regional Anesthetic RegionalAnes (5400) | 🞎 Yes 🞎 No |  |  |
|  | *(If Yes →)* | Regional Anesthetic Site: RegAnesSite (5410) | 🞎 Thoracic Epidural Catheter 🞎 Lumbar Epidural Catheter 🞎 Caudal Epidural Catheter🞎 Lumbar Epidural -Single shot 🞎 Caudal Epidural – Single shot 🞎 Lumbar Intrathecal -Single Shot 🞎 Other |
|  |  |  |  |  |  |  |
|  | *(If Yes →)* | Regional Anesthetic Drug:  | Bupivicaine RegAnesDrugBup (5420)  | 🞎 Yes 🞎 No | Bupivicaine/Fentanyl RegAnesDrugBupFen (5430)  | 🞎 Yes 🞎 No |
|  |  | *(Select all that apply)* | Clonidine RegAnesDrugClon (5440)  | 🞎 Yes 🞎 No | Fentanyl RegAnesDrugFen (5450)  | 🞎 Yes 🞎 No |
|  |  |  | Hydromorphone RegAnesDrugHydro (5460)  | 🞎 Yes 🞎 No | Lidocaine RegAnesDrugLido (5470)  | 🞎 Yes 🞎 No |
|  |  |  | Morphine RegAnesDrugMorph (5480)  | 🞎 Yes 🞎 No | Ropivicaine RegAnesDrugRop (5490)  | 🞎 Yes 🞎 No |
|  |  |  | Ropivicaine/Fentanyl RegAnesDrugRopFen (5500)  | 🞎 Yes 🞎 No | Tetracaine RegAnesDrugTetra (5510)  | 🞎 Yes 🞎 No |
|  |  |  |  |  | Other RegAnesDrugOth (5520) | 🞎 Yes 🞎 No |
|  |  |  |
|  | Intercostal Nerve Infiltration by Surgeon or Anesthesia: IntNerveInf (5530) | 🞎 Yes 🞎 No |
|  | Regional Field Block by Surgeon or Anesthesia:RegFieldBlock (5540) | 🞎 Yes 🞎 No |
| **ANESTHESIA Airway** |
| Airway In-situ (ETT or Tracheostomy): AirwayInsitu (5550) | 🞎 Yes 🞎 No |
| Airway Type: AirwayType (5560) | 🞎 No airway support 🞎 Simple face mask 🞎 Bag-mask 🞎 Nasal cannulae 🞎 Laryngeal Mask Airway (LMA) 🞎 Endotracheal intubation 🞎 Tracheostomy |
|  | *(If LMA →)* | Airway Size *(mm):* AirwaySizeLMA (5570) | 🞎 1.0 🞎 1.5 🞎 2.0 🞎 2.5 🞎 3.0 🞎 4.0 🞎 5.0 |
|  | *(If Endotracheal intubation →)* | Airway Size *(mm):* AirwaySizeIntub (5580) | 🞎 2.5 🞎 3.0 🞎 3.5 🞎 4.0 🞎 4.5 🞎 5.0🞎 5.5 🞎 6.0 🞎 6.5 🞎 7.0 🞎 7.5 🞎 8.0 🞎 Other 🞎 Size not listed (DLETT, Tracheotomy)  |
|  |  | Cuffed Cuffed (5590) | 🞎 Yes 🞎 No |
|  | *(If Endotracheal intubation or Tracheostomy→)* | Airway Site: AirwaySite (5600) | 🞎 Oral 🞎 Nasal 🞎 Tracheostomy |
| Endobronchial Isolation (DLETT, Bronchial Blocker) EndobroncIso (5610) | 🞎 Yes 🞎 No |  |
| ICU Type Ventilator Used Intraop ICUTypeVent (5620) | 🞎 Yes 🞎 No |  |
| **ANESTHESIA Transfusion** |
| Transfusion 🞎 Yes 🞎 No Transfusion (5630) *(If Yes enter # of units or 0 if none ↓)* |
|  | Packed Red Blood Cells (PRBC)Units PRBCUnits (5660) | \_\_\_\_\_\_  |
|  | Platelet Pheresis Units PlateletsPheresis (5690) | \_\_\_\_\_\_  |
|  | Random Donor Platelet Units PlateletsDonor (5700) | \_\_\_\_\_\_ |
|  | Fresh Frozen Plasma (FFP) – Units FFPUnits (5730) | \_\_\_\_\_\_  |
|  | Cryoprecipitate – Units CryoUnits (5760) | \_\_\_\_\_\_  |
|  | Whole Blood – Units WholeBldUnits (5790) | \_\_\_\_\_\_  |
|  | Autologous Transfusion AutologousTrans (5800) | 🞎 Yes 🞎 No |
|  | Cell Saver/Salvage CellSavSal (5810) | 🞎 Yes 🞎 No |
|  | Directed Donor Units DirDonorUnits (5820) | 🞎 Yes 🞎 No |
| **ANESTHESIA Procoagulents** |
| Factor VIIa (Novoseven) mcg/kg- Dose 1 \_\_\_\_\_\_ProcoagFactorVIIa1 (5850)  |
| *(If Factor VIIa dose 1 > 0 →)* Factor VIIa (Novoseven) mcg/kg- Dose 2 \_\_\_\_\_\_ProcoagFactorVIIa2 (5860)  |
| *(If Factor VIIa dose 2 > 0 →)*Factor VIIa (Novoseven) mcg/kg- Dose 3 \_\_\_\_\_\_ProcoagFactorVIIa3 (5870)  |
| Prothrombin Concentrate units/kg- Dose 1 \_\_\_\_\_\_ProcoagProthrom1 (5880)  |
| *(If Prothrombin dose 1 > 0 →)*Prothrombin Concentrate units/kg- Dose 2 \_\_\_\_\_\_ProcoagProthrom2 (5890)  |
| *(If Prothrombin dose 2 > 0 →)*Prothrombin Concentrate units/kg- Dose 3 \_\_\_\_\_\_ProcoagProthrom3 (5900) |
| Fibrinogen Concentrate mg/kg- Dose 1 \_\_\_\_\_\_ProcoagFibrin1 (5910) |
| *(If Fibrinogen dose 1 > 0 →)*Fibrinogen Concentrate mg/kg- Dose 2 \_\_\_\_\_\_ProcoagFibrin2 (5920) |
| *(If Fibrinogen dose 2 > 0 →)*Fibrinogen Concentrate mg/kg- Dose 3 \_\_\_\_\_\_ProcoagFibrin3 (5930) |
| Antithrombin 3 Concentrate units- Dose 1 \_\_\_\_\_\_ProcoagAntithrom1 (5940) |
| *(If Antithrombin dose 1 > 0 →)* Antithrombin 3 Concentrate units- Dose 2 \_\_\_\_\_\_ProcoagAntithrom2 (5950) |
| *(If Antithrombin dose 2 > 0 →)*Antithrombin 3 Concentrate units- Dose 3 \_\_\_\_\_\_ProcoagAntithrom3 (5960) |
| Desmopressin (DDAVP) mcg/kg- Dose 1 \_\_\_\_\_\_ ProcoagDesmo1 (5970) |
| *(If DDAVP dose 1 > 0 →)*Desmopressin (DDAVP) mcg/kg- Dose 2 \_\_\_\_\_\_ProcoagDesmo2 (5980) |
| *(If DDAVP dose 2 > 0 →)*Desmopressin (DDAVP) mcg/kg- Dose 3 \_\_\_\_\_\_ProcoagDesmo3 (5990) |
| **ANESTHESIA Antifibrinolytics** |
| Epsilon Aminocaproic Acid (Amicar) Used  | 🞎 Yes 🞎 No AntifibEpUse (6000) |
| *(If Yes →)* | Epsilon Aminocaproic Acid (Amicar) Load mg/kg  | \_\_\_\_\_\_ mg/kg AntifibEpLoad (6010) |
|  | Epsilon Aminocaproic Acid (Amicar) Pump Prime mg/kg  | \_\_\_\_\_\_ mg/kg AntifibEpPrime (6020) |
|  | Epsilon Aminocaproic Acid (Amicar) Infusion Rate mg/kg/hr  | \_\_\_\_\_\_ mg/kg/hr AntifibEpInfRate (6030) |
| Tranexamic Acid Used  | 🞎 Yes 🞎 No AntifibTranexUse (6040) |
| *(If Yes →)* | Tranexamic Acid Load mg/kg  | \_\_\_\_\_\_ mg/kg AntifibTranexLoad (6050) |
|  | Tranexamic Acid Pump Prime mg/kg  | \_\_\_\_\_\_ mg/kg AntifibTranexPrime (6060) |
|  | Tranexamic Acid Infusion Rate mg/kg/hr  | \_\_\_\_\_\_ mg/kg/hr AntifibTranexInfRate (6070) |
| Trasylol (Aprotinin) Used | 🞎 Yes 🞎 No AntifibTrasylUse (6080) |
| *(If Yes →)* | Trasylol (Aprotinin) Load cc/kg  | \_\_\_\_\_\_ cc/kg AntifibTrasylLoad (6090) |
|  | Trasylol (Aprotinin) Pump Prime cc/kg  | \_\_\_\_\_\_ cc/kg AntifibTrasylPrime (6100) |
|  | Trasylol (Aprotinin) Infusion Rate cc/kg/hr  | \_\_\_\_\_\_ cc/kg/hr AntifibTrasylInfRate (6110) |
| **ANESTHESIA Intraoperative Pharmacology (including CPB)** IntraopPharm (6140) |
| Intraoperative Medications:  | 🞎 None *(If not None, select all intra-operative medications that apply: ↓)* |
| 🞎 | 5-HT3 Agents (e.g., Ondansetron) | 🞎 | Narcotic |
| 🞎 | Adenosine bolus | 🞎 | Nesiritide Infusion |
| 🞎 | Amiodarone  | 🞎 | Nicardipine Infusion |
| 🞎 | Bronchodilator - Inhaled | 🞎 | Nitric Oxide inhalation |
| 🞎 | Benzodiazepine | 🞎 | Nitroglycerin (Tridil) infusion |
| 🞎 | Calcium Chloride infusion | 🞎 | Nitroprusside (Nipride) |
| 🞎 | Calcium Gluconate infusion | 🞎 | Phenoxybenzamine bolus |
| 🞎 | Desflurane | 🞎 | Phentolamine (Regitine)  |
| 🞎 | Dexmetetomidine (Precedex) | 🞎 | Phenylephrine infusion |
| 🞎 | Dobutamine infusion | 🞎 | Procainamide |
| 🞎 | Dopamine infusion | 🞎 | Propofol (Diprivan) infusion |
| 🞎 | Epinephrine (Adrenalin) infusion | 🞎 | Prostaglandin infusion |
| 🞎 | Esmolol  | 🞎 | Sevoflurane |
| 🞎 | Fenoldopam infusion | 🞎 | Sodium Bicarbonate bolus |
| 🞎 | Furosemide  | 🞎 | Steroids IV/CPB (Hydrocortisone/Methylprednisolone/Dexamethasone) |
| 🞎 | Insulin  | 🞎 | Thyroid Hormone  |
| 🞎 | Isoflurane | 🞎 | Tromethamine (THAM) bolus |
| 🞎 | Isoproterenol infusion | 🞎 | Vasopressin infusion |
| 🞎 | Ketamine | 🞎 | Other Inotrope |
| 🞎 | Norepinephrine (Levophed) infusion | 🞎 | Other Vasodilator |
| 🞎 | Magnesium Sulfate  | 🞎 | Other Vasoconstrictor |
| 🞎 | Milrinone |  |  |
| **ANESTHESIA Pharmacology On Arrival To ICU/PACU** ICUPharm (6170) |
| Medications Given At Time Of Transfer: | 🞎 None  *(If not None, select all medications that apply: ↓)* |
| 🞎 | Aminocaproic Acid (Amicar) infusion | 🞎 | Nesiritide Infusion |  |
| 🞎 | Amiodarone infusion | 🞎 | Nicardipine infusion |  |
| 🞎 | Aprotinin (Trasylol ) infusion | 🞎 | Nitric Oxide inhalation |  |
| 🞎 | Benzodiazepine infusion | 🞎 | Nitroglycerin (Tridil) infusion |  |
| 🞎 | Calcium Chloride infusion | 🞎 | Nitroprusside (Nipride) infusion |  |
| 🞎 | Calcium Gluconate infusion | 🞎 | Norepinephrine (Levophed) infusion |  |
| 🞎 | Dexmetetomidine (Precedex) infusion | 🞎 | Phentolamine (Regitine) infusion |  |
| 🞎 | Dobutamine infusion | 🞎 | Phenylephrine infusion |  |
| 🞎 | Dopamine infusion | 🞎 | Procainamide bolus/infusion |  |
| 🞎 | Epinephrine (Adrenalin) infusion | 🞎 | Propofol (Diprivan) infusion |  |
| 🞎 | Esmolol infusion | 🞎 | Prostaglandin infusion |  |
| 🞎 | Fenoldopam infusion | 🞎 | Thyroid Hormone infusion |  |
| 🞎 | Insulin infusion | 🞎 | Tranexamic Acid infusion |  |
| 🞎 | Isoproterenol infusion | 🞎 | Vasopressin infusion |  |
| 🞎 | Local Anesthetic infusion via catheter (On-Q, Pleural catheter) | 🞎 | Other Inotrope |  |
| 🞎 | Milrinone infusion | 🞎 | Other Vasodilator |  |
| 🞎 | Muscle Relaxant infusion | 🞎 | Other Vasoconstrictor |  |
| 🞎 | Narcotic infusion |  |  |  |
| **ANESTHESIA ICU/PACU Care** |
| Date and Time of ICU/PACU Arrival: ICUArrDT (6180) *(mm/dd/yyyy 00:00 – 23:59)* \_ \_ / \_ \_ / \_ \_ \_ \_ \_ \_:\_ \_ |
| Initial FiO2: InitialFiO2 (6190) | \_\_\_\_\_\_\_\_\_\_\_ | Mechanical circulatory support(ECMO/VAD) MechCircSup (6200) | 🞎 Yes 🞎 No |
| ICU/PACU Arrival labsICUPACULabs (6211) | 🞎 Yes 🞎 No | *(If Yes →)* | pH: \_\_\_\_\_ pH (6220) | pCO2: \_\_\_\_\_ pCO2 (6230) | pO2: \_\_\_\_\_ pO2 (6240) |
|  | Base Excess: \_\_\_\_\_ BaseExcess (6250) | Lactate: \_\_\_\_\_Lactate (6260) | Hematocrit: \_\_\_\_\_Hematocrit (6270) |
| Initial pulse oximeter \_\_\_\_\_ *%* InitPulseOx (6280) | Temperature on ICU/PACU Arrival: \_\_\_\_\_ *° C* TempICUArr (6290) |
| Temperature Measurement Site: TempSite (6300) | 🞎 Forehead scan 🞎 Tympanic membrane 🞎 Skin 🞎 Rectal 🞎 Bladder 🞎 Oral 🞎 Axillary 🞎 Other |
| Need for Temporary Pacemaker on Arrival In ICU/PACU TempPace (6310) | 🞎 Yes 🞎 No |  |
|  | *(If Yes →)* | Site of Temporary Pace Maker: TempPaceSite (6320) | 🞎 Epicardial 🞎 Transvenous |
|  | *(If Yes →)* | Type of Temporary Pacing: TempPaceType (6330) | 🞎 Atrial 🞎 Atrio-ventricular 🞎 Ventricular 🞎 Other |
| Disposition Under Anesthesia:DispUnderAnes (6340) | 🞎 Discharged as planned after PACU/Recovery🞎 Admit to ICU as planned🞎 Other location not listed above | 🞎 Admit to hospital floor as planned🞎 Unplanned admit to hospital or ICU🞎 Patient expired under anesthetic management |
| Peri-Anesthetic Demise: (within 24 hr of last anesthetic end time)PeriAnesDemise (6350) | 🞎 Yes 🞎 No |
| **ANESTHESIA Adverse Events** AnesAdvEvent (6380) |
| Anesthesia adverse events: | 🞎 None | *(If not None, select all adverse events that apply: ↓)* |
| 🞎 | Oral/Nasal Injury-Bleeding | 🞎 | Protamine Reaction |
| 🞎 | Respiratory Arrest | 🞎 | Cardiac Arrest - related to anesthesia care |
| 🞎 | Difficult Intubation/Reintubation | 🞎 | Cardiac Arrest - unrelated to anesthesia care |
| 🞎 | Stridor / Sub-glottic Stenosis | 🞎 | TEE related esophageal bleeding / rupture |
| 🞎 | Extubation | 🞎 | Esophageal Chemical Burn |
| 🞎 | Endotracheal Tube Migration | 🞎 | TEE related airway compromise |
| 🞎 | Airway Injury | 🞎 | TEE related extubation |
| 🞎 | Arrhythmia - Central Venous Line Placement | 🞎 | Complications during patient transfer |
| 🞎 | Myocardial Injury - Central Venous Line Placement | 🞎 | Peripheral Nerve Injury due to positioning |
| 🞎 | Vascular Compromise - Central Venous Line Placement | 🞎 | Arterial Line Placement- Extremity ischemia |
| 🞎 | Pneumothorax - Central Venous Line Placement | 🞎 | Anesthesia Equipment Malfunction/ Failure |
| 🞎 | Vascular Access | 🞎 | Intravenous Infiltration |
| 🞎 | Hematoma requiring relocation of catheter placement | 🞎 | Integument Injury (skin breakdown or dehiscence, pressure ulcer or alopecia) |
| 🞎 | Arterial Puncture | 🞎 | Bronchospasm |
| 🞎 | Intravenous/Intra-arterial Air Embolism | 🞎 | Hemoptysis |
| 🞎 | Bleeding - Regional Anesthetic Site | 🞎 | Postop Nausea/Vomiting requiring admission |
| 🞎 | Intrathecal Puncture - Regional | 🞎 | Vomiting or Aspiration on Induction/Emergence  |
| 🞎 | Local Anesthetic Toxicity - Regional | 🞎 | Emergence Delirium requiring Medication |
| 🞎 | Neurologic Injury - Regional | 🞎 | Laryngospasm requiring medication |
| 🞎 | Anaphylaxis/Anaphylactoid Reaction | 🞎 | Unplanned need to remain intubated postprocedure due to anesthesia factors |
| 🞎 | Non-allergic Drug Reaction | 🞎 | Ocular Injury (corneal abrasion or injury) |
| 🞎 | Medication Administration | 🞎 | Pulmonary Hypertensive Crisis |
| 🞎 | Medication Dosage | 🞎 | Hypercyanotic Episode (Tet Spell) |
| 🞎 | Intraoperative Recall | 🞎 | Other |
| 🞎 | Malignant Hyperthermia |  |  |