

European Paediatric Cardiac Code (IPCCC Short List) - 1 April 2012

with ICD-9, ICD-10, STS/EACTS Short List crossmapping

	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent: January 2010
Diagnostic congenital and generic cardiac codes						
Normal heart,	01.01.00	nc		nc		Normal heart
Levocardia: heart predominantly in left hemithorax,	02.01.03	nc		nc		Levocardia
Normal atrial arrangement (situs), atrioventricular & ventriculo-arterial connections,	01.03.10	nc		nc		
Usual atrial arrangement (atrial situs solitus),	01.03.00	nc		nc		
Concordant ventriculo-arterial connections,	01.05.00	nc		nc		
Innocent murmur,	10.12.01	785.2		R01.0		
Abnormalities of position and connection of heart						
Position-orientation of heart abnormal,	02.01.09	746.8		Q24.8		Cardiac, Other
Dextrocardia: heart predominantly in right hemithorax,	02.01.02	746.8		Q24.0		Dextrocardia
Midline heart (mesocardia),	02.01.04	746.8		Q24.8		Mesocardia
Position or morphology of thoraco-abdominal organs abnormal,	03.01.09	759.9		Q24.8		Thoracic and/or mediastinal, Other
Lung anomaly,	03.02.09	748.9		Q33.8		Thoracic and/or mediastinal, Other
Functionally congenital single lung,	03.02.14	748.5		Q33.2		Thoracic and/or mediastinal, Other
Tracheobronchial anomaly,	03.03.05	748.3		Q32.4		Thoracic and/or mediastinal, Other
Visceral heterotaxy (abnormal arrangement thoraco-abdominal organs),	03.01.02	759.3		Q20.6		Heterotaxia syndrome
Abnormal atrial arrangement,	01.03.06	746.9		Q20.9		Cardiac, Other
Total mirror imagery (situs inversus),	03.01.03	759.3		Q89.3		Situs inversus
Right isomerism ('asplenia'),	03.01.04	746.8		Q20.6		Atrial isomerism, Right
Left isomerism ('polysplenia'),	03.01.05	746.8		Q20.6		Atrial isomerism, Left
Atrioventricular and-or ventriculo-arterial connections abnormal,	01.03.09	746.9		Q20.9		Cardiac, Other
Double inlet atrioventricular connection (double inlet ventricle),	01.01.14	745.3		Q20.4		Single ventricle
Double inlet right ventricle,	01.04.03	745.3		Q20.4		Single ventricle, DfRV
Double inlet left ventricle,	01.04.04	745.3		Q20.4		Single ventricle, DLV
Tricuspid atresia,	06.01.01	746.1		Q22.4		Single ventricle, Tricuspid atresia
Mitral atresia,	06.02.01	746.8		Q23.2		Single ventricle, Mitral atresia
Solitary ventricle of indeterminate morphology,	02.03.05	745.3		Q20.4		Single ventricle, Other
Discordant ventriculo-arterial connections (TGA),	01.05.01	745.1		Q20.3		TGA
Transposition of great arteries (TGA) (concordant atrioventricular & discordant ventriculo-arterial connections) & intact ventricular septum,	01.01.02	745.1		Q20.3		TGA, IVS
Congenitally corrected transposition of great arteries (discordant atrioventricular & ventriculo-arterial connections),	01.01.03	745.1		Q20.5		Congenitally corrected TGA
Double outlet right ventricle,	01.01.04	746.8		Q20.1		DORV
Double outlet right ventricle: Fallot type (subaortic or doubly committed ventricular septal defect & pulmonary stenosis),	01.01.17	746.8		Q20.1		DORV, TOF type
Double outlet right ventricle: transposition type (subpulmonary ventricular septal defect),	01.01.18	746.8		Q20.1		DORV, TGA type
Double outlet right ventricle: with non-committed ventricular septal defect,	01.01.19	746.8		Q20.1		DORV, Remote VSD (Uncommitted VSD)
Double outlet right ventricle: subaortic or doubly committed ventricular septal defect without pulmonary stenosis ('VSD type'),	01.01.40	746.8		Q20.1		DORV, VSD type
Double outlet right ventricle: with intact ventricular septum,	01.01.24	746.8		Q20.1		DORV, IVS
Double outlet left ventricle,	01.05.03	746.8		Q20.2		DOLV
Common arterial trunk (truncus arteriosus),	09.01.01	746.0		Q20.0		Truncus arteriosus
Concordant VA connections with parallel great arteries (anatomically corrected malposition),	01.05.10	746.9		Q20.8		Cardiac, Other
Tetralogy of Fallot and variants						
Tetralogy of Fallot,	01.01.01	745.2		Q21.3		TOF
Pulmonary atresia + ventricular septal defect (VSD) (including Fallot type),	01.01.06	745.2		Q21.3		Pulmonary atresia, VSD (including TOF, PA)
Pulmonary atresia + ventricular septal defect (VSD) + systemic-to-pulmonary collateral artery(ies) (MAPCA(s)),	01.01.25	745.2	747.9	Q21.3	Q27.8	Pulmonary atresia: VSD: MAPCA (pseudotruncus)
Absent pulmonary valve syndrome: Fallot-type,	09.05.25	746.8	746.0	Q24.8	Q22.3	TOF, Absent Pulmonary Valve
Solitary arterial trunk (absent intrapericardial pulmonary arteries),	09.07.26	745.2		Q25.7		Cardiac, Other
Major systemic-to-pulmonary collateral artery(ies) (MAPCA(s)),	09.08.01	747.9		Q27.8		MAPCA(s) (major aortopulmonary collateral[s]) (without PA-VSD)
Systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) stenosis(es),	09.20.25	747.9		Q27.8		MAPCA(s) (major aortopulmonary collateral[s]) (without PA-VSD)
Abnormalities of great veins						
Superior caval vein (SVC) abnormality,	04.01.00	747.4		Q26.9		Systemic venous anomaly
Left superior caval vein (SVC) persisting to coronary sinus,	04.01.01	747.4		Q26.1		Systemic venous anomaly
Inferior caval vein (IVC) abnormality,	04.03.00	747.4		Q26.9		Systemic venous anomaly
Inferior caval vein (IVC) interruption (absent suprarenal segment) with azygos continuation,	04.03.10	747.4		Q26.8		Systemic venous anomaly
Hepatic vein abnormality,	04.02.00	747.4		Q26.8		Systemic venous anomaly
Systemic vein abnormality: congenital,	04.05.00	747.4		Q26.9		Systemic venous anomaly
Systemic venovenous collateral(s),	04.00.06	747.4		Q26.8		Systemic venous anomaly
Pulmonary vein abnormality,	04.08.00	747.4		Q26.9		Cardiac, Other
Pulmonary vein stenosis,	04.08.91	747.4		Q26.8		Pulmonary venous stenosis
Totally anomalous pulmonary venous connection,	04.08.05	747.4		Q26.2		Total anomalous pulmonary venous connection
Totally anomalous pulmonary venous connections: supracardiac,	04.06.00	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC), Type 1 (supracardiac)
Totally anomalous pulmonary venous connections: infracardiac,	04.08.10	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC), Type 2 (cardiac)
Totally anomalous pulmonary venous connections: intracardiac,	04.08.20	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC), Type 3 (infracardiac)
Totally anomalous pulmonary venous connections: mixed,	04.08.30	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC), Type 4 (mixed)
Partially anomalous pulmonary venous connection(s),	04.07.01	747.4		Q26.3		Partial anomalous pulmonary venous connection (PAPVC)
Partially anomalous pulmonary venous connection: Scimitar syndrome,	01.01.16	747.4		Q26.8		Partial anomalous pulmonary venous connection (PAPVC), Scimitar
Obstructed pulmonary venous connection(s),	04.08.06	747.4		Q26.4		Cardiac, Other
Coronary sinus abnormality,	04.04.00	746.8		Q24.5		Cardiac, Other
Abnormalities of atriums and atrial septum						
Right atrial abnormality,	05.01.00	746.9		Q20.8		Cardiac, Other
Left atrial abnormality,	05.02.00	746.9		Q20.8		Cardiac, Other
Cor triatriatum (divided left atrium),	05.02.01	746.8		Q24.2		Cor triatriatum
Intact atrial septum (no interatrial communication),	05.03.10	nc		nc		
Atrial septum abnormality,	05.03.00	745.5		Q21.9		Cardiac, Other
Patent foramen ovale (PFO),	05.03.01	745.5		Q21.1		PFO
Interatrial communication (ASD),	05.04.01	745.5		Q21.1		ASD
Atrial septal defect (ASD) within oval fossa (secundum),	05.04.02	745.5		Q21.1		ASD, Secundum
Spontaneous closure of atrial septal defect (ASD) within oval fossa (secundum),	05.04.03	nc		nc		
Sinus venosus defect (ASD),	05.05.00	745.5		Q21.1		ASD, sinus venosum
Common atrium (virtual absence of atrial septum),	05.06.01	746.8		Q21.2		ASD, Common atrium (single atrium)
Interatrial communication (ASD) through coronary sinus orifice,	05.05.03	745.5		Q21.1		ASD, Coronary sinus
Abnormalities of atrioventricular valves and atrioventricular septal defect						
Tricuspid valve abnormality,	06.01.00	746.9		Q22.9		Tricuspid valve, Other
Tricuspid regurgitation,	06.01.91	746.8		Q22.8		Tricuspid regurgitation, non-Ebstein's related
Tricuspid regurgitation: congenital,	06.01.25	746.8		Q22.8		Tricuspid regurgitation, non-Ebstein's related
Tricuspid valvar dysplasia,	06.01.03	746.9		Q22.8		Tricuspid valve, Other
Straddling tricuspid valve,	06.01.09	746.9		Q22.8		Tricuspid valve, Other
Ebstein's malformation of tricuspid valve,	06.01.34	746.2		Q22.5		Ebstein's anomaly
Tricuspid stenosis,	06.01.92	746.1		Q22.4		Tricuspid stenosis
Mitral stenosis,	06.02.92	746.5		Q23.2		Mitral stenosis
Mitral valve abnormality,	06.02.00	746.9		Q23.9		Mitral valve, Other
Mitral regurgitation,	06.02.91	746.6		Q23.3		Mitral regurgitation
Mitral regurgitation: congenital,	06.02.25	746.6		Q23.3		Mitral regurgitation
Straddling mitral valve,	06.02.09	746.9		Q23.8		Mitral valve, Other
Supravalvar mitral ring,	05.02.02	746.8		Q20.8		Mitral stenosis, Supravalvar mitral ring
Mitral valvar prolapse,	06.02.35	746.9		I4.1		Mitral valve, Other
True cleft of mitral leaflet (without atrioventricular septal defect),	06.02.36	746.9		Q23.8		Mitral valve, Other
Mitral valve stenosis,	06.02.93	746.5		Q23.2		Mitral stenosis, Valvar
Mitral valvar stenosis: congenital,	06.02.07	746.5		Q23.2		Mitral stenosis, Valvar
Mitral subvalvar apparatus abnormality,	06.02.12	746.9		Q23.9		Mitral stenosis, subvalvar
Mitral subvalvar stenosis,	06.02.13	746.8		Q23.8		Mitral stenosis, subvalvar
Parachute malformation of mitral valve,	06.02.56	746.9		Q23.8		Mitral stenosis, Subvalvar, Parachute
Atrioventricular septal defect (AVSD),	06.06.00	746.6		Q21.2		AVC (AVSD)
Atrioventricular septal defect (AVSD): isolated atrial component (primum ASD)(partial),	06.06.01	746.6		Q21.2		AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, Primum)
Atrioventricular septal defect (AVSD): isolated ventricular component,	06.06.08	746.6		Q21.2		AVC (AVSD)
Atrioventricular septal defect (AVSD): atrial & ventricular components with common atrioventricular orifice (complete),	06.06.09	746.6		Q21.2		AVC (AVSD), Complete (CAVSD)
Atrioventricular septal defect (AVSD): atrial & (restrictive) ventricular components + separate atrioventricular valve orifices ('intermediate'),	06.06.10	746.6		Q21.2		AVC (AVSD), Intermediate (transitional)
Atrioventricular septal defect (AVSD) with ventricular imbalance,	06.07.26	746.6		Q21.2		Single ventricle, Unbalanced AV Canal
Atrioventricular septal defect (AVSD) atrioventricular valvar abnormality,	06.05.01	746.9		Q24.8		Cardiac, Other
Atrioventricular septal defect (AVSD) atrioventricular valvar regurgitation,	06.05.06	746.8		Q24.8		Cardiac, Other
Atrioventricular septal defect and Tetralogy of Fallot,	01.01.20	745.6	745.2	Q21.2	Q21.3	TOF, AVC (AVSD)

Abnormalities of ventricles and ventricular septum

Functionally univentricular heart,	01.01.22	746.9	Q20.9	Single ventricle
Ventricular imbalance: dominant left ventricle + hypoplastic right ventricle,	07.08.41	746.8	Q20.8	Cardiac, Other
Ventricular imbalance: dominant right ventricle + hypoplastic left ventricle,	07.08.42	746.8	Q20.8	Cardiac, Other
Right ventricular abnormality,	07.01.00	746.9	Q24.9	Cardiac, Other
Right ventricular aneurysm,	07.01.14	746.8	Q24.8	Aneurysm, Ventricular, Right (including pseudoaneurysm)
Right ventricular hypoplasia,	07.02.00	746.9	Q20.8	Hypoplastic RV
Double chambered right ventricle,	07.03.01	746.8	Q24.8	DCRV
Right ventricular outflow tract obstruction,	07.05.01	746.8	Q24.8	Cardiac, Other
Left ventricular abnormality,	07.06.00	746.9	Q24.9	Cardiac, Other
Left ventricular hypoplasia,	07.07.00	746.9	Q20.8	Hypoplastic LV
Left ventricular aneurysm,	07.06.13	746.8	Q24.8	Aneurysm, Ventricular, Left (including pseudoaneurysm)
Hypoplastic left heart syndrome,	01.01.09	746.7	Q23.4	Hypoplastic left heart syndrome (HLHS)
Left ventricular outflow tract obstruction,	07.09.01	746.8	Q24.8	Cardiac, Other
Shone's syndrome: left heart obstruction at multiple sites,	01.01.33	746.9	Q20.9	Shone's syndrome
Intact ventricular septum,	07.21.00	nc	nc	
Ventricular septal defect (VSD),	07.10.00	745.4	Q21.0	VSD
Single ventricular septal defect (VSD),	07.15.05	745.4	Q21.0	VSD
Multiple ventricular septal defect (VSD)s,	07.15.04	745.4	Q21.0	VSD, Multiple
Perimembranous ventricular septal defect (VSD),	07.10.01	745.4	Q21.0	VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)
Ventricular septal defect (VSD) + malaligned outlet septum,	07.10.12	745.4	Q21.0	VSD
Inlet ventricular septal defect (VSD),	07.14.05	745.4	Q21.0	VSD, Type 3 (Inlet), AV Canal type)
Muscular ventricular septal defect (VSD),	07.11.01	745.4	Q21.0	VSD, Type 4 (Muscular)
Subarterial ventricular septal defect (VSD),	07.12.00	745.4	Q21.0	VSD, Type 1 (Subarterial) (Supracristal) (Conal septal defect) (Infundibular)
Doubly committed subarterial ventricular septal defect (VSD),	07.12.01	745.4	Q21.0	VSD, Type 1 (Subarterial) (Supracristal) (Conal septal defect) (Infundibular)
Communication between left ventricle + right atrium (Gerbode defect),	07.14.02	745.4	Q21.0	VSD, Type: Gerbode type (LV-RA communication)
Spontaneous closure of ventricular septal defect (VSD),	07.16.01	V13.6	Z87.7	
Ventricular septal abnormality,	07.20.00	745.9	Q21.9	Cardiac, Other
Aneurysm of membranous septum,	07.20.01	745.9	Q21.9	Cardiac, Other

Abnormalities of ventriculo-arterial valves and great arteries

Aortopulmonary window,	09.04.01	745.0	Q21.4	AP window (aortopulmonary window)
Pulmonary artery from ascending aorta (hemitruncus),	09.09.08	747.3	Q25.7	Pulmonary artery origin from ascending aorta (hemitruncus)
Truncal valvar abnormality,	09.02.00	746.9	Q24.8	Cardiac, Other
Truncal valvar regurgitation,	09.02.03	746.9	Q24.8	Truncal valve insufficiency
Pulmonary stenosis,	09.05.92	746.0	Q22.3	Pulmonary stenosis
Subpulmonary stenosis,	07.05.30	746.8	Q24.3	Pulmonary stenosis, Subvalvar
Pulmonary valvar abnormality,	09.05.00	746.0	Q22.3	Pulmonary valve, Other
Pulmonary valvar stenosis,	09.05.01	746.0	Q22.1	Pulmonary stenosis, Valvar
Pulmonary valvar stenosis: congenital,	09.05.04	746.0	Q22.1	Pulmonary stenosis, Valvar
Pulmonary regurgitation,	09.05.91	746.0	Q22.2	Pulmonary insufficiency
Pulmonary regurgitation: congenital,	09.05.22	746.0	Q22.2	Pulmonary insufficiency
Pulmonary atresia,	09.05.11	746.0	Q22.0	Pulmonary atresia
Pulmonary atresia + imperforate valve,	09.05.12	746.0	Q22.0	Pulmonary atresia
Pulmonary atresia + intact ventricular septum,	01.01.07	746.0	Q22.0	Pulmonary atresia, VS
Coronary fistulas from RV (sinusoidal),	09.45.11	746.9	Q24.8	Cardiac, Other
Right ventricle dependent coronary circulation,	09.46.06	746.9	Q24.8	Cardiac, Other
Pulmonary trunk (MPA) abnormality,	09.07.00	747.3	Q25.7	Cardiac, Other
Supravalvar pulmonary trunk stenosis,	09.07.13	747.3	Q25.6	Pulmonary artery stenosis (Hypoplasia), Main (Trunk)
Pulmonary trunk hypoplasia,	09.07.11	747.3	Q25.7	Pulmonary artery stenosis (Hypoplasia), Main (Trunk)
Pulmonary arterial abnormality,	09.10.00	747.3	Q25.7	Cardiac, Other
Pulmonary arterial stenosis,	09.10.01	747.3	Q25.7	Pulmonary artery stenosis
Central pulmonary arterial stenosis: proximal to hilar bifurcation,	09.10.07	747.3	Q25.6	Pulmonary artery stenosis, Branch, Central (within the hilar bifurcation)
Peripheral pulmonary arterial stenoses: at-beyond hilar bifurcation,	09.10.06	747.3	Q25.6	Pulmonary artery stenosis, Branch, Peripheral (at or beyond the hilar bifurcation)
Right pulmonary arterial stenosis,	09.10.25	747.3	Q25.6	Pulmonary artery stenosis
Left pulmonary arterial stenosis,	09.10.26	747.3	Q25.6	Pulmonary artery stenosis
Pulmonary arterial hypoplasia,	09.10.11	747.3	Q25.7	Pulmonary artery stenosis (Hypoplasia), Main (Trunk)
Discontinuous (non-confluent) pulmonary arteries,	09.10.10	747.3	Q25.7	Pulmonary artery, Discontinuous
Pulmonary arterial aneurysm,	09.10.44	747.3	Q25.7	Aneurysm, Pulmonary artery
Aortic stenosis,	09.15.92	746.3	Q23.0	Aortic stenosis,
Subaortic stenosis,	07.09.00	746.8	Q24.4	Aortic stenosis, Subvalvar
Subaortic stenosis due to fibromuscular shelf,	07.09.03	746.8	Q24.4	Aortic stenosis, Subvalvar
Aortic valvar abnormality,	09.15.00	746.9	Q23.9	Aortic valve, Other
Aortic valvar stenosis,	09.15.13	746.3	Q23.0	Aortic stenosis, Valvar
Aortic valvar stenosis: congenital,	09.15.01	746.3	Q23.0	Aortic stenosis, Valvar
Eccentric opening of tricuspid aortic valve,	09.15.12	746.9	Q23.8	Aortic valve, Other
Aortic regurgitation,	09.15.91	746.4	Q23.1	Aortic insufficiency
Aortic regurgitation: congenital,	09.15.07	746.4	Q23.1	Aortic insufficiency
Bicuspid aortic valve,	09.15.22	746.4	Q23.1	Aortic valve, Other
Aortic atresia,	09.15.03	746.7	Q23.0	Aortic valve atresia
Aortic valvar prolapse,	09.15.30	746.9	Q23.8	Aortic valve, Other
Aortic abnormality,	07.09.31	747.2	Q25.4	Cardiac, Other
Ascending aorta abnormality,	09.16.10	747.2	Q25.3	Cardiac, Other
Ascending aorta hypoplasia,	09.16.02	747.2	Q25.4	Cardiac, Other
Supravalvar aortic stenosis,	09.16.00	747.2	Q25.3	Aortic stenosis, Supravalvar
Ascending aorta dilation,	09.16.09	747.2	Q25.4	Cardiac, Other
Ascending aorta dilation associated with Marfan syndrome,	09.16.05	747.2	Q25.4	Cardiac, Other
Aortic sinus of Valsalva aneurysm,	09.18.01	747.2	Q25.4	Sinus of Valsalva aneurysm
Aorto-ventricular tunnel,	09.17.01	747.2	Q25.4	LV to aorta tunnel
Aorto: left ventricular tunnel,	09.17.02	747.2	Q25.4	LV to aorta tunnel
Aortic arch abnormality,	09.28.00	747.2	Q25.4	Cardiac, Other
Right aortic arch,	09.28.15	747.2	Q25.4	Cardiac, Other
Aortic coarctation,	09.29.01	747.1	Q25.1	Coarctation of aorta
Aortic arch hypoplasia (tubular),	09.29.11	747.2	Q25.4	Aortic arch hypoplasia
Interrupted aortic arch,	09.29.31	747.1	Q25.4	Interrupted aortic arch
Aortic arch branch abnormality,	09.30.00	747.6	Q27.8	Cardiac, Other
Aberrant origin right subclavian artery,	09.30.02	747.6	Q27.8	Cardiac, Other
Aberrant origin left subclavian artery,	09.30.04	747.6	Q27.8	Cardiac, Other
Vascular ring,	09.31.00	747.2	Q25.4	Vascular ring
Double aortic arch,	09.28.09	747.2	Q25.4	Vascular ring
Pulmonary arterial sling,	09.09.06	747.3	Q25.7	Pulmonary artery sling
Descending aorta dilation,	09.28.16	747.2	Q25.4	Cardiac, Other
Descending-abdominal aorta hypoplasia (middle aortic syndrome),	09.29.16	747.2	Q25.4	Cardiac, Other

Abnormalities of coronary arteries, arterial duct and pericardium; arteriovenous fistulae

Coronary arterial abnormality,	09.46.00	746.8	Q24.5	Coronary artery anomaly
Anomalous origin of coronary artery from pulmonary artery,	09.41.01	746.8	Q24.5	Coronary artery anomaly, Anomalous pulmonary origin (includes ALCAPA)
Coronary fistula,	09.45.01	746.8	Q24.5	Coronary artery anomaly, Fistula
Coronary artery: anomalous aortic origin or course,	09.42.00	746.8	Q24.5	(AAOCA)
Aberrant course of coronary artery: across right ventricular outflow tract,	09.43.18	746.8	Q24.5	(AAOCA)
Intramural proximal coronary arterial course,	09.43.05	746.8	Q24.5	(AAOCA)
Coronary arterial aneurysm(s),	09.46.01	746.8	Q24.5	Coronary artery anomaly, Aneurysm
Arterial duct (ductus arteriosus) abnormality,	09.27.00	747.8	Q25.8	Cardiac, Other
Patent arterial duct (PDA),	09.27.21	747.0	Q25.0	Patent ductus arteriosus
Arteriovenous fistula (malformation),	09.19.01	747.6	Q27.3	Peripheral vasculature, Other
Pulmonary arteriovenous fistula (malformation),	09.19.05	747.3	Q25.7	Pulmonary AV fistula
Distal systemic arterial abnormality,	09.20.20	747.9	Q27.8	Peripheral vasculature, Other
Pericardial abnormality,	10.01.00	746.8	Q24.8	Pericardial disease, Other
Cardiac abnormality,	01.01.39	746.8	Q24.8	Cardiac, Other
Vascular abnormality,	01.01.60	459.9	I99	Peripheral vasculature, Other
Aneurysm,	01.01.61	442.9	I72.9	Aneurysm, Other

Diagnostic comorbidities: hereditary, neonatal and non-cardiac codes

Multiple congenital malformations,	14.06.01	759.7	Q89.7	Miscellaneous, Other
Family history of congenital heart lesion,	10.23.01	V19.5	Z92.7	
Family history of disorder with cardiac involvement,	10.23.03	V19.5	Z92.7	
Family history of sudden death,	10.23.11	V19.8	Z94.8	
Maternal teratogen associated with congenital heart disease,	14.05.01	760.7	Q86.8	
Maternal teratogen or disease potentially associated with congenital heart disease,	14.05.00	760.7	Q86.8	
Maternal systemic lupus erythematosus (SLE),	10.23.02	655.4	P00.8	
Maternally derived fetal disease or syndrome associated with heart disease,	14.05.40	655.4	P96.9	

Neonatal disorders or abnormalities

Neonatal disorder,	10.15.00	779.9	P96.9	Miscellaneous, Other
Infant of diabetic mother,	10.22.03	775.0	P70.1	
Heart muscle disease in infant of diabetic mother,	10.07.71	775.0†	P70.1†	‡3.8*
Premature birth,	10.22.02	765.1	P07.3	
Premature birth 32-35 weeks,	10.22.05	765.1	P07.3	
Premature birth less than 32 weeks,	10.22.06	765.1	P07.3	
Meconium aspiration,	10.15.12	770.1	P24.0	
Necrotising enterocolitis,	10.15.05	777.5	P77	
Transient myocardial ischaemia,	10.15.10	779.8	P29.4	
Persistent pulmonary hypertension of the newborn (PFC),	10.15.01	747.9	P29.3	

Chromosomal anomalies and other syndromes

Chromosomal anomaly,	14.01.01	758.9	Q99.9	Other chromosomal/syndromic abnormality
Trisomy 21: Down's syndrome,	14.01.02	758.0	Q90.9	Down Syndrome
45XO: Turner's syndrome,	14.01.05	758.6	Q96	Turner Syndrome
22q11 microdeletion,	14.01.21	758.3	Q93.8	22q11 deletion
22q11 microdeletion with full DiGeorge sequence (including immune dysfunction),	14.02.06	279.1	D82.1	DiGeorge
Trisomy 18: Edwards' syndrome,	14.01.03	758.2	Q91.3	Other chromosomal/syndromic abnormality
Trisomy 13: Patau's syndrome,	14.01.04	758.1	Q91.7	Other chromosomal/syndromic abnormality
Hereditary disorder associated with heart disease,	10.23.04	759.7	Q87.8	Other chromosomal/syndromic abnormality
Pompe's disease: glycogen storage disease type IIa,	14.02.21	271.0	E74.9	Other chromosomal/syndromic abnormality
Friedreich's ataxia,	14.02.10	334.0	G11.1	Other chromosomal/syndromic abnormality
Muscular dystrophy,	14.02.58	359.1	G71.0	Other chromosomal/syndromic abnormality
Duchenne's muscular dystrophy,	14.02.34	359.1	G71.0	Other chromosomal/syndromic abnormality
Marfan syndrome,	14.02.17	759.8	Q87.4	Marfan syndrome
Noonan syndrome,	14.02.19	759.8	Q87.1	Other chromosomal/syndromic abnormality
Tuberous sclerosis,	14.02.28	759.5	Q85.1	Other chromosomal/syndromic abnormality
Williams syndrome (infantile hypercalcaemia),	14.02.30	275.4	Q93.8	Williams Beuren syndrome
Alagille syndrome: arteriohepatic dysplasia,	14.02.66	751.6	Q44.7	Alagille syndrome (intrahepatic biliary duct agenesis)
Fetal rubella syndrome,	14.02.32	771.0	P35.0	Rubella
Syndrome-association with cardiac involvement,	14.02.00	759.9	Q87.8	Other chromosomal/syndromic abnormality
Dyslipidaemia,	10.19.01	272.4	E78.9	Miscellaneous, Other

Non-cardiac anomalies and diseases associated with heart anomalies

Hereditary non-cardiac abnormality not apparent,	10.23.00	nc	nc	None
Non-cardiac abnormality associated with heart disease,	14.03.00	759.9	Q89.9	Other preoperative noncardiac abnormality
Spleen absent (asplenia),	03.07.03	759.0	Q20.6	Asplenia
Multiple spleens (polysplenia),	03.07.04	759.0	Q20.6	Polysplenia
Cystic fibrosis,	14.03.06	277.0	E84.9	Other preoperative noncardiac abnormality
Tracheo-oesophageal fistula,	14.03.08	750.3	Q39.2	Other preoperative noncardiac abnormality
Congenital diaphragmatic hernia,	14.03.07	756.6	Q79.0	Other preoperative noncardiac abnormality
Omphalocele,	14.03.10	553.1	Q79.2	Other preoperative noncardiac abnormality
Duodenal stenosis/atresia,	14.03.11	751.1	Q41.0	Other preoperative noncardiac abnormality
Gastro-oesophageal reflux disease (GORD),	14.03.09	530.1	Q40.8	Other preoperative noncardiac abnormality
Intestines malrotated,	03.06.03	751.4	Q43.3	Other preoperative noncardiac abnormality
Renal failure,	15.82.10	586	N19	Other preoperative noncardiac abnormality
Renal abnormality,	14.03.23	753.9	Q64.9	Other preoperative noncardiac abnormality
Cerebral anomaly,	14.03.91	742.9	Q04.9	Other preoperative noncardiac abnormality
Anoxic-ischaemic encephalopathy,	14.03.72	348.1	G93.1	Other preoperative noncardiac abnormality
Microcephaly,	14.03.33	742.1	Q02	Other preoperative noncardiac abnormality
Psychomotor developmental delay,	14.03.05	315.5	F79	Other preoperative noncardiac abnormality
Transient ischaemic attack: less than 24 hours (TIA),	14.03.44	435	G45.9	Other preoperative noncardiac abnormality
Reversible ischaemic neurologic deficit: 24-72 hours (RIND),	14.03.97	435	G45.8	Other preoperative noncardiac abnormality
Cerebrovascular accident (stroke),	14.03.42	436	I64	Other preoperative noncardiac abnormality
Migraine,	14.04.46	346.9	G43.9	Other preoperative noncardiac abnormality
Diver's decompression sickness,	14.04.47	993.3	T70.3	Other preoperative noncardiac abnormality
Choanal atresia,	14.03.47	748	Q30.0	Other preoperative noncardiac abnormality
Cleft lip or palate,	14.04.12	749.2	Q37	Other preoperative noncardiac abnormality
Kyphoscoliosis,	14.04.09	756.1	Q67.5	Other preoperative noncardiac abnormality
Anterior chest wall (pectus) deformity,	14.04.14	754.8	Q67.8	Pectus
Pectus carinatum,	14.04.04	754.8	Q67.7	Pectus
Pectus excavatum,	14.04.05	754.8	Q67.6	Pectus
Congenital coagulation disorder,	14.03.28	286.9	D68.8	Other preoperative noncardiac abnormality
Connective tissue disease,	14.03.92	710.9	M35.9	Other preoperative noncardiac abnormality
Non-cardiothoracic-vascular abnormality,	14.03.04	759.8	Q89.8	Miscellaneous, Other
Thoracic-mediastinal abnormality,	14.03.29	759.8	Q89.8	Thoracic and-or mediastinal, Other

Diagnostic codes for acquired and postprocedural abnormalities or disorders

Rheumatic and infective heart disease

Acute rheumatic fever,	10.05.01	390	I00	Miscellaneous, Other
Rheumatic fever with cardiac involvement,	10.05.21	391	I01	Rheumatic heart disease
Rheumatic valvar disease,	10.05.30	397.9	I09.1	Rheumatic heart disease
Rheumatic mitral valvar disease,	10.05.31	394.9	I09.9	Mitral valve, Other
Rheumatic aortic valvar disease,	10.05.33	395.9	I09.9	Aortic valve, Other
Endocarditis,	10.06.00	421.0	I33.0	Endocarditis
Infective endocarditis,	10.06.01	421.0	I33.0	Endocarditis
Bacterial endocarditis,	10.06.41	421.0	I33.0	Endocarditis
Postprocedural endocarditis,	10.06.64	421.0	E878.8	I33.0
Heart abscess,	10.06.20	429.8	I51.8	Cardiac, Other
Infectious myocarditis,	10.07.01	422.9	I40.0	Cardiac, Other
Viral myocarditis,	10.07.03	422.9	I40.0	Cardiac, Other
Trypanosomal myocarditis (Chagas' disease),	10.07.08	86.0†	425.6*	B57.2†
Infectious pericarditis,	10.08.01	420.9	I30.1	B97
Viral pericarditis,	10.08.03	420.9	I30.1	B97
Bacterial pericarditis,	10.08.04	420.9	I30.1	B96.8

Great vein and atrial acquired abnormalities

Systemic vein abnormality: acquired,	10.30.00	459.9	I87.9	Cardiac, Other
Systemic vein obstruction,	10.30.09	459.2	I87.1	Systemic venous obstruction
Superior caval vein (SVC) abnormality: acquired,	10.31.01	459.9	I87.9	Cardiac, Other
Postprocedural superior caval vein (SVC) complication,	15.04.01	459.9	E878.8	I87.9
Inferior caval vein (IVC) abnormality - acquired,	10.31.21	459.9	I87.9	Cardiac, Other
Postprocedural inferior caval vein (IVC) complication,	15.04.05	459.9	E878.8	I87.9
Pulmonary venous abnormality: acquired,	10.24.00	459.9	I28.9	Cardiac, Other
Postprocedural pulmonary vein complication,	15.05.01	459.9	E878.8	I28.9
Pulmonary vein obstruction,	15.05.03	459.2	E878.8	I28.8
Postprocedural major vein complication,	15.04.34	459.9	E878.8	I87.9
Postprocedural femoral vein complication,	15.04.15	459.9	E878.8	I87.9
Right atrial abnormality: acquired,	15.10.10	429.8	I51.8	Cardiac, Other
Postprocedural right atrial complication,	15.10.11	997.1	E878.8	I87.8
Obstruction of right atrial conduit (including total cavopulmonary connection),	15.10.13	996.7	T82.8	Conduit failure
Left atrial abnormality: acquired,	15.10.20	429.8	I51.8	Cardiac, Other
Postprocedural left atrial complication,	15.10.21	997.1	E878.8	I87.8
Atrial septum abnormality: acquired,	10.17.40	429.8	I51.8	Cardiac, Other
Postprocedural atrial septum complication,	15.10.61	997.1	I87.8	Cardiac, Other
Residual interatrial communication ("ASD"),	15.10.63	745.5	E878.8	Q21.1
Ineffective balloon atrial septostomy,	15.10.66	429.4	E878.8	I87.8
Platypnoea-orthodeoxia syndrome,	10.17.50	745.5	Q21.8	Cardiac, Other

Acquired valvar and atrioventricular septal defect abnormalities

Heart valvar abnormality: acquired,	10.32.00	424.9	I38	Cardiac, Other
Prosthetic valve failure,	10.33.00	996	T82.0	Prosthetic valve failure
Tricuspid valvar abnormality: acquired,	10.32.01	424.2	I36.9	Tricuspid valve, Other
Postprocedural tricuspid valvar complication,	15.11.00	424.2	E878.8	I36.9
Residual tricuspid regurgitation,	15.11.03	746.8	Q22.8	I36.8
Tricuspid valvar prosthesis complication,	15.11.08	996.0	T82.0	Prosthetic valve failure
Mitral valvar abnormality: acquired,	10.33.01	424.0	I34.9	Mitral valve, Other
Mitral stenosis: acquired,	10.33.02	394.0	I34.2	Mitral stenosis, Valvar
Mitral valvar stenosis: recurrent,	10.33.03	394.0	I34.2	Mitral stenosis, Valvar
Mitral regurgitation: acquired,	10.33.04	424.0	I34.0	Mitral regurgitation
Mitral regurgitation: recurrent,	10.33.06	424.0	I34.0	Mitral regurgitation
Postprocedural mitral valvar complication,	15.12.00	394.9	E878.8	I34.9
Residual mitral valvar stenosis,	15.12.01	746.5	E878.8	Q23.2
Residual mitral regurgitation,	15.12.03	746.6	E878.8	Q23.3
Mitral valvar prosthesis complication,	15.12.09	996.0	T82.0	Prosthetic valve failure

Truncal valvular abnormality: acquired,	10.37.01	424.9		I38		Cardiac, Other
Residual truncal regurgitation,	15.25.03	746.9	E878.8	Q24.8	Y83.8	Truncal valve insufficiency
Common arterial trunk (truncus) abnormality: acquired,	10.51.01	447.8		I77.8		Cardiac, Other
Postprocedural common arterial trunk complication,	15.25.31	447.8	E878.8	I87.8		Cardiac, Other
Pulmonary valvular abnormality: acquired,	10.35.01	424.3		I37.9		Pulmonary valve, Other
Pulmonary valvular stenosis: acquired,	10.35.02	424.3		I37.0		Pulmonary stenosis, Valvar
Pulmonary valvular stenosis: recurrent,	10.35.03	424.3		I37.0		Pulmonary stenosis, Valvar
Pulmonary regurgitation: acquired,	10.35.04	424.3		I37.1		Cardiac, Other
Pulmonary valvular atresia: acquired,	09.05.15	424.3		I37.8		Pulmonary atresia
Postprocedural pulmonary valvular complication,	15.30.00	424.3	E878.8	I37.9	Y83.8	Pulmonary valve, Other
Residual pulmonary valvular stenosis,	15.30.01	746.0	E878.8	Q22.1	Y83.8	Pulmonary stenosis, Valvar
Residual pulmonary regurgitation,	15.30.03	746.0	E878.8	Q22.2	Y83.8	Pulmonary insufficiency
Pulmonary valvular prosthesis complication,	15.30.08	996.0		T82.0		Prosthetic valve failure
Aortic valvular abnormality: acquired,	10.36.01	424.1		I35.9		Aortic valve, Other
Aortic valvular stenosis: acquired,	10.36.02	424.1		I35.0		Aortic stenosis, Valvar
Aortic valvular stenosis: recurrent,	10.36.03	424.1		I35.0		Aortic stenosis, Valvar
Aortic regurgitation: acquired,	10.36.04	424.1		I35.1		Aortic insufficiency
Aortic regurgitation: recurrent,	10.36.06	424.1		I35.1		Aortic insufficiency
Postprocedural aortic valvular complication,	15.35.00	424.1	E878.8	I35.9	Y83.8	Aortic valve, Other
Residual aortic valvular stenosis,	15.35.01	746.3	E878.8	Q23.0	Y83.8	Aortic stenosis, Valvar
Residual aortic regurgitation,	15.35.03	746.4	E878.8	Q23.1	Y83.8	Aortic insufficiency
Aortic valvular prosthesis complication,	15.35.08	996.0		T82.0		Prosthetic valve failure
Postprocedural atrioventricular septal defect complication,	15.16.00	429.8	E878.8	Q21.2	Y83.8	Cardiac, Other
Residual ventricular component of atrioventricular septal defect,	15.16.02	745.6	E878.8	Q21.2	Y83.8	VSD
Atrioventricular valvular abnormality in atrioventricular septal defect (AVSD): acquired,	10.34.60	424.9		I38		Cardiac, Other
Left atrioventricular valvular regurgitation: acquired,	10.34.44	424.0		I34.0		Mitral regurgitation
Residual common atrioventricular valvular regurgitation,	15.13.02	746.9	E878.8	Q24.8	Y83.8	Cardiac, Other
Postprocedural right atrioventricular valvular complication,	15.14.00	424.2	E878.8	I36.9	Y83.8	Cardiac, Other
Postprocedural left atrioventricular valvular complication,	15.15.00	394.9	E878.8	I34.9	Y83.8	Cardiac, Other
Acquired ventricular and ventricular septal abnormalities						
Ventricular dysynchrony,	07.00.01	428.1		I50.1		Cardiac, Other
Right ventricular abnormality: acquired,	10.16.00	429.8		I51.8		Cardiac, Other
Right ventricular dysfunction,	07.01.11	429.8		I51.8		Cardiac, Other
Right ventricular congestive heart failure,	10.16.08	428.0		I50.0		Cardiac, Other
Postprocedural right ventricular complication,	15.20.01	997.1		I87.8		Cardiac, Other
Postprocedural right ventricular outflow tract complication,	15.20.21	429.8	E878.8	I51.8	Y83.8	Cardiac, Other
Right ventricular outflow tract obstruction: acquired,	10.16.16	429.8		I51.8		Cardiac, Other
Aneurysm of right ventricular outflow tract patch,	15.20.25	996.7		T82.8		Aneurysm, Ventricular, Right
Residual right ventricular outflow tract obstruction,	15.20.23	746.8	E878.8	Q24.8	Y83.8	Cardiac, Other
Left ventricular abnormality: acquired,	10.16.40	429.8		I51.8		Cardiac, Other
Left ventricular dysfunction,	07.06.10	429.8		I51.8		Cardiac, Other
Left ventricular failure,	10.16.47	428.1		I50.1		Cardiac, Other
Postprocedural left ventricular complication,	15.21.01	997.1		I87.8		Cardiac, Other
Postprocedural left ventricular outflow tract complication,	15.21.21	429.8	E878.8	I51.8	Y83.8	Cardiac, Other
Recurrent left ventricular outflow tract obstruction,	10.16.46	429.8		I51.8		Cardiac, Other
Residual left ventricular outflow tract obstruction,	15.21.22	746.8	E878.8	Q24.8	Y83.8	Cardiac, Other
Narrowing of constructed intraventricular tunnel: acquired,	10.16.81	996.7		T82.8		Cardiac, Other
Subaortic stenosis: acquired,	10.16.86	429.8		I51.8		Aortic stenosis, Subvalvar
Subaortic stenosis in complex heart disease: acquired,	10.16.82	429.8		I51.8		Aortic stenosis, Subvalvar
Residual subaortic stenosis in complex heart disease,	15.20.75	429.8	E878.8	I51.8	Y83.8	Aortic stenosis, Subvalvar
Subpulmonary stenosis: acquired,	10.16.88	429.8		I51.8		Pulmonary stenosis, Subvalvar
Subpulmonary stenosis in complex heart disease: acquired,	10.16.83	429.8		I51.8		Pulmonary stenosis, Subvalvar
Residual subpulmonary stenosis in complex heart disease,	15.20.76	429.8	E878.8	I51.8	Y83.8	Pulmonary stenosis, Subvalvar
Abnormality associated with ventricular septum: acquired,	10.16.60	429.8		I51.0		Cardiac, Other
Postmyocardial infarct ventricular septal defect (VSD),	10.16.62	410		I23.2		VSD
Residual ventricular septal defect (VSD),	15.22.02	745.4	E878.8	Q21.0	Y83.8	VSD
Cardiomyopathy and heart muscle diseases						
Myocardial failure in end stage congenital heart disease,	10.07.40	428.9	746.9	I50.9	Q24.9	Cardiomyopathy, End-stage congenital heart disease
Cardiomyopathy,	10.10.01	425.4		I42.9		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Ventricular myocardial noncompaction cardiomyopathy,	07.08.50	425.4		I42.8		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Hypertrophic cardiomyopathy,	10.10.20	425.4		I42.2		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Dilated cardiomyopathy,	10.10.25	425.4		I42.0		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Arrhythmogenic right ventricular cardiomyopathy,	07.01.10	425.4		I42.8		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Endocardial fibroelastosis,	10.10.12	425.3		I42.4		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Idiopathic restrictive cardiomyopathy,	10.10.11	425.4		I42.5		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Infiltrative cardiomyopathy,	10.10.13	425.4		I42.8		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Drug induced heart muscle disease,	10.07.05	425.9		I42.7		Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Nutritional heart muscle disease,	10.07.61	269.9†	425.7*	E63.9†	I43.2*	Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Heart muscle disease in collagen vascular/ connective tissue disorder,	10.07.81	710.9†	425.8*	M35.9†	I43.8*	Cardiomyopathy (including dilated, restrictive, and hypertrophic)
Acquired pulmonary arterial abnormalities						
Pulmonary arterial disease: acquired,	10.13.50	417.9		I28.9		Cardiac, Other
Right pulmonary arterial stenosis: acquired,	10.13.68	417.8		I28.8		Pulm art stenosis, Branch, Central
Left pulmonary arterial stenosis: acquired,	10.13.69	417.8		I28.8		Pulm art stenosis, Branch, Central
Postprocedural pulmonary trunk complication,	15.32.01	417.8	E878.8	I28.8	Y83.8	Cardiac, Other
Postprocedural right pulmonary artery complication,	15.32.21	417.8	E878.8	I28.8	Y83.8	Cardiac, Other
Postprocedural left pulmonary artery complication,	15.32.41	417.8	E878.8	I28.8	Y83.8	Cardiac, Other
Residual right pulmonary artery stenosis,	15.32.23	747.3	E878.8	Q25.6	Y83.8	Pulm art stenosis, Branch, Central
Residual left pulmonary artery stenosis,	15.32.43	747.3	E878.8	Q25.6	Y83.8	Pulm art stenosis, Branch, Central
Pulmonary arterial hypertension,	10.13.01	416.8		I27.0		Miscellaneous, Other
Primary pulmonary hypertension,	10.13.02	416.0		I27.0		Primary pulmonary hypertension
Secondary pulmonary hypertension,	10.13.20	416.8		I27.8		Miscellaneous, Other
Pulmonary hypertension due to left to right shunt,	10.13.21	416.8		I27.8		Miscellaneous, Other
Pulmonary vascular disease,	10.13.06	416.8		I27.8		Pulmonary vascular obstructive disease
Irreversible pulmonary vascular disease due to congenital heart disease (Eisenmenger Syndrome),	10.13.08	416.8		I27.8		Pulmonary vascular obstructive disease (Eisenmenger's)
Pulmonary embolism,	10.13.51	415.1		I26.9		Pulmonary embolism
Pulmonary oedema,	10.30.30	514		J81		Miscellaneous, Other
Acquired systemic arterial, coronary and ductal abnormalities						
Abnormality of aorta: acquired,	10.14.70	447.8		I77.8		Cardiac, Other
Supravalvular aortic stenosis: acquired,	10.14.77	447.1		I77.1		Aortic stenosis, Supravalvar
Recoarctation of aorta,	10.14.72	447.1		I77.1		Coarctation of aorta
Ascending aorta dilation: acquired,	10.14.40	441.6		I71.9		Cardiac, Other
Ascending aortopathy associated with conotruncal malformations,	10.14.95	441.6		I71.9		Cardiac, Other
Aortic root dilation,	09.16.13	747.2		Q25.4		Cardiac, Other
Aortic dissection,	10.14.51	441.0		I71.0		Aortic dissection
Ascending aorta dissection & propagation beyond arch (DeBakey type I),	10.14.52	441.0		I71.0		Aortic dissection
Ascending aorta dissection not beyond arch (DeBakey type II/Stanford type A),	10.14.53	441.0		I71.0		Aortic dissection
Descending aorta dissection & distal propagation (DeBakey type III/Stanford type B),	10.14.54	441.0		I71.0		Aortic dissection
Aortic aneurysm,	10.14.50	441.2		I71.2		Aortic aneurysm (including pseudoaneurysm)
Ascending aorta aneurysm,	10.14.42	441.2		I71.2		Aortic aneurysm (including pseudoaneurysm)
Descending aorta aneurysm,	10.14.43	441.2		I71.2		Aortic aneurysm (including pseudoaneurysm)
Abdominal aorta aneurysm,	10.14.44	441.4		I71.4		Aortic aneurysm (including pseudoaneurysm)
Rupture of thoracic aortic aneurysm,	10.14.45	441.1		I71.1		Aortic dissection
Rupture of abdominal aortic aneurysm,	10.14.46	441.3		I71.5		Aortic dissection
Postprocedural aortic complication,	15.37.73	447.8	E878.8	I77.8	Y83.8	Cardiac, Other
Postprocedural ascending aorta complication,	15.36.01	447.8	E878.8	I77.8	Y83.8	Cardiac, Other
Postprocedural descending aorta complication,	15.37.01	447.8	E878.8	I77.8	Y83.8	Cardiac, Other
Residual aortic coarctation,	15.37.05	747.1	E878.8	Q25.1	Y83.8	Coarctation of aorta
Postprocedural aneurysm of aorta at coarctation site,	15.37.07	441.2	E878.8	I71.2	Y83.8	Aneurysm, Other
Postprocedural systemic arterial complication,	15.24.00	997.2		I97.8		Peripheral vasculature, Other
Systemic arteritis,	10.14.60	447.6		I77.6		Peripheral vasculature, Other
Kawasaki disease,	10.09.01	446.1		M30.3		Miscellaneous, Other
Kawasaki disease without cardiac involvement,	10.09.08	446.1		M30.3		Miscellaneous, Other
Kawasaki disease with aneurysm(s) or dilated coronary vessels,	10.09.02	446.1	414.1	M30.3	I25.4	Coronary artery anomaly, Aneurysm
Acquired coronary arterial disease,	10.09.10	414.9		I25.9		Coronary artery anomaly, Other
Ischaemic heart disease,	10.09.30	414.9		I25.9		Coronary artery anomaly, Other
Myocardial infarction,	10.18.00	410		I21.9		Myocardial infarction
Acute myocardial infarction,	10.18.01	410		I21.9		Myocardial infarction
Postmyocardial infarction complication,	10.18.24	411		I23.8		Myocardial infarction
Postprocedural coronary arterial complication,	15.41.00	447.8	E878.8	I77.8	Y83.8	Coronary artery anomaly, Other
Postprocedural coronary artery bypass graft (CABG) complication,	15.41.39	996.7		T82.8		Coronary artery anomaly, Other

Systemic hypertension,	10.14.01	401.9	I10		Miscellaneous, Other
Primary (essential) systemic hypertension,	10.14.02	401.9	I10		Miscellaneous, Other
Secondary systemic hypertension,	10.14.00	405.9	I15.9		Miscellaneous, Other
Systemic hypertension due to aortic arch obstruction,	10.14.04	405.9	I15.8		Miscellaneous, Other
Arterial duct (ductus arteriosus) abnormality: acquired,	10.14.80	447.8	I77.8		Cardiac, Other
Postprocedural arterial duct complication,	15.39.01	447.8	E878.8	Y83.8	Cardiac, Other
Residual arterial duct (PDA) patency,	15.39.02	747.0	E878.8	Q25.0	Patent ductus arteriosus
Postprocedural systemic-to-pulmonary collateral artery complication,	15.39.50	447.8	E878.8	I77.8	Cardiac, Other

Acquired cardiac conduit-shunt, pericardial, post-transplant & miscellaneous abnormalities

Cardiac conduit complication,	15.55.00	996.7		T82.9	Conduit failure
Cardiac conduit failure,	15.55.16	996.0		T82.5	Conduit failure
Systemic-to-pulmonary arterial shunt complication,	15.56.00	996.0		T82.9	Shunt failure
Systemic-to-pulmonary arterial shunt partial obstruction,	15.56.01	996.7		T82.5	Shunt failure
Systemic-to-pulmonary arterial shunt complete obstruction,	15.56.02	996.0		T82.5	Shunt failure
Systemic-to-pulmonary arterial shunt failure,	15.56.21	996.7		T82.9	Shunt failure
Pulmonary autograft failure,	15.55.24	996.7		T82.8	Shunt failure
"Failed" Fontan type circulation,	15.50.60	998.9		T81.8	Cardiac, Other
Pericardial abnormality: acquired,	10.08.29	423.9		I31.9	Pericardial disease, Other
Pericarditis,	10.08.00	420.9		I30.9	Pericarditis
Constrictive pericarditis,	10.08.09	423.2		I31.1	Pericardial disease, Other
Pericardial effusion,	10.08.31	423.9		I31.3	Pericardial effusion
Chylopericardium	10.08.15	457.8		I31.3	Pericardial effusion
Pericardial effusion requiring drainage,	15.83.00	423.9		I31.3	Pericardial effusion requiring drainage
Cardiac tamponade,	10.08.13	423.9		I31.9	Pericardial effusion requiring drainage
Heart tumour,	10.03.01	239.8		D48.7	Cardiac tumor
Traumatic injury of heart,	10.90.01	861.0		S26	Cardiac, Other
Complication after heart or lung transplant,	15.95.00	996.8	E878.0	I97.9	Cardiac, Other
Heart muscle disease in cardiac rejection,	10.07.42	996.8		T86.2	Cardiac, Other
Cardiac transplant associated coronary allograft vasculopathy,	15.41.13	414.0	996.8	I25.1	Coronary artery anomaly, Other
Lung disease in lung transplant rejection,	15.95.66	996.8		T86.3	Thoracic and-or mediastinal, Other
Post-lung transplant obliterative bronchiolitis,	15.95.64	491.8	996.8	J44.8	Thoracic and-or mediastinal, Other
Lymphoproliferative disease following transplantation,	15.95.03	E878.0	C88.9	Y83.0	Miscellaneous, Other

Diagnostic codes for rhythm and conduction disturbances

Electrocardiographic (ECG) abnormality,	11.20.00	794.3		R94.3	Arrhythmia
Arrhythmia,	11.00.00	427.9		M9.9	Arrhythmia
Cardiac arrest,	11.00.21	427.5		M6.9	Arrhythmia
Sinus bradycardia,	11.02.04	427.8		M9.8	Arrhythmia
Vagal sinus bradycardia: bradycardia(s) of prematurity,	11.02.15	427.8		M9.8	Arrhythmia
Sinus tachycardia,	11.02.07	427.8		M7.1	Arrhythmia
Sudden Arrhythmic Death Syndrome (SADS),	11.00.11	798.1		M6.1	Arrhythmia
Supraventricular rhythm disturbance,	11.01.01	427.0		M9.8	Arrhythmia, atrial
Supraventricular tachycardia,	11.01.00	427.0		M7.1	Arrhythmia, atrial
Focal atrial tachycardia: ectopic (automatic),	11.03.12	427.8		M7.1	Arrhythmia, atrial
Multifocal atrial tachycardia (chaotic),	11.03.15	427.8		M7.1	Arrhythmia, atrial
Premature atrial beats (complexes-contractions),	11.03.21	427.6		M9.1	Arrhythmia, atrial
Macro-reentrant atrial tachycardia (including atrial flutter),	11.03.13	427.8		M7.1	Arrhythmia, atrial
Cavotricuspid isthmus dependent reentry atrial tachycardia: atrial flutter,	11.03.66	427.8		M9.8	Arrhythmia, atrial
Non-cavotricuspid isthmus dependent atrial tachycardia,	11.03.67	427.8		M9.8	Arrhythmia, atrial
Atrial flutter,	11.03.07	427.3		M8	Arrhythmia, atrial
Atrial fibrillation,	11.03.08	427.3		M8	Arrhythmia, atrial
Paroxysmal atrial tachycardia,	11.03.05	427.0		M7.1	Arrhythmia, atrial
Rhythm disturbance at level of AV junction,	11.04.00	427.8		M9.8	Arrhythmia, junctional
Atrioventricular junctional (nodal) tachycardia,	11.04.07	427.0		M7.1	Arrhythmia, junctional
Atrioventricular nodal reentry tachycardia (AVNRT),	11.04.11	427.0		M7.1	Arrhythmia, junctional
Junctional ectopic tachycardia (His bundle),	11.04.42	427.0		M7.1	Arrhythmia, junctional
AV reciprocating (reentry) tachycardia (accessory pathway mediated),	11.07.29	426.7		M5.6	Arrhythmia, atrial
Manifest accessory pathway,	11.07.11	426.7		M5.6	Arrhythmia, atrial
AV reciprocating (reentry) tachycardia: manifest preexcitation in sinus rhythm (Wolff Parkinson White),	11.07.01	426.7		M5.6	Arrhythmia, atrial
Accessory pathway: retrograde conduction only (concealed: no preexcitation sinus rhythm),	11.07.06	426.7		M5.8	Arrhythmia, atrial
AV reciprocating (reentry) tachycardia: orthodromic,	11.07.22	426.7		M5.6	Arrhythmia, atrial
AV reentry (reciprocating) tachycardia: antidromic (typically wide QRS),	11.07.23	426.7		M5.6	Arrhythmia, atrial
AV reentry (reciprocating) tachycardia: orthodromic & antidromic,	11.07.28	426.7		M5.6	Arrhythmia, atrial
Permanent junctional reciprocating tachycardia (PJRT),	11.07.14	427.8		M7.1	Arrhythmia, atrial
Multiple accessory pathways,	11.07.26	426.7		M5.6	Arrhythmia, atrial
Ventricular rhythm disturbance,	11.05.00	427.8		M9.8	Arrhythmia, ventricular
Ventricular tachycardia,	11.05.06	427.1		M7.2	Arrhythmia, ventricular
Non-sustained ventricular tachycardia,	11.05.50	427.1		M7.2	Arrhythmia, ventricular
Macro-reentrant ventricular tachycardia,	11.05.57	427.1		M7.2	Arrhythmia, ventricular
Focal ventricular tachycardia,	11.05.56	427.1		M7.2	Arrhythmia, ventricular
Ventricular flutter,	11.05.09	427.4		M9.0	Arrhythmia, ventricular
Ventricular fibrillation,	11.05.10	427.4		M9.0	Arrhythmia, ventricular
Premature ventricular beats (complexes-contractions),	11.05.21	427.6		M9.3	Arrhythmia, ventricular
Conduction disturbance,	11.06.00	426.9		M5.9	Arrhythmia, Heart block
Sinoatrial block,	11.06.01	426.6		M5.5	Arrhythmia, atrial
Sinus node dysfunction (including sick sinus),	11.02.03	427.8		M9.5	Arrhythmia, atrial
1st degree atrioventricular block,	11.06.02	426.1		M4.0	Arrhythmia, atrial
2nd degree atrioventricular block,	11.06.03	426.1		M4.1	Arrhythmia, atrial
Complete atrioventricular block (3rd degree),	11.06.07	426.0		M4.2	Arrhythmia, Heart block
Congenital complete heart block,	11.06.16	746.8		Q24.6	Arrhythmia, Heart block, Congenital
Acquired complete atrioventricular block,	11.06.10	426.0		M4.2	Arrhythmia, Heart block, Acquired
Complete right bundle branch block,	11.06.23	426.4		M5.1	Arrhythmia
Complete left bundle branch block,	11.06.24	426.3		M4.7	Arrhythmia
Morphological abnormality of conduction system,	11.23.00	746.8		Q24.8	Arrhythmia
Ion channelopathy,	11.12.00	427.1		M7.2	Arrhythmia
Prolonged QT interval,	11.12.01	426.9		M5.8	Arrhythmia
Long QT syndrome,	11.12.29	426.9		M5.8	Arrhythmia
Catecholaminergic polymorphic ventricular tachycardia,	11.05.17	427.1		M7.2	Arrhythmia
Brugada syndrome (ventricular tachycardia with anterior raised ST),	11.05.44	427.1		M7.2	Arrhythmia
Complication following arrhythmia related procedure,	15.51.00	998.9		T81.8	Miscellaneous, Other
Pacemaker dysfunction-complication,	11.11.01	996.0		T82.1	Arrhythmia, Pacemaker, Indication for replacement
Pacemaker battery exhaustion: end of life (EOL),	11.11.03	996.0		T82.1	Arrhythmia, Pacemaker, Indication for replacement
Pacemaker-implantable cardioverter & defibrillator (ICD) loss of capture,	11.11.17	996.0		T82.1	Arrhythmia, Pacemaker, Indication for replacement
Pacemaker dysfunction-complication necessitating replacement,	11.11.00	996.0		T82.1	Arrhythmia, Pacemaker, Indication for replacement
Pacemaker (atrioventricular dyssynchrony) syndrome,	11.11.21	996.0		T82.1	Arrhythmia, Pacemaker, Indication for replacement
Pacemaker lead dysfunction-complication,	11.11.40	996.0		T82.1	Miscellaneous, Other
Pacemaker generator site local complication,	11.11.59	996.0		T82.9	Miscellaneous, Other
Insertable electrocardiographic (ECG) loop recorder complication,	11.11.80	996.0		T82.9	Miscellaneous, Other
Implantable cardioverter & defibrillator (ICD) dysfunction-complication,	11.11.60	996.0		T82.1	Miscellaneous, Other

Diagnostic codes for lung and thoracic disease

Tracheobronchial malacia,	14.03.49	519.1		J98.0	Tracheal disease, Other
Tracheal stenosis,	16.10.01	519.1		J39.8	Tracheal stenosis
Tracheal disease,	16.10.09	519.1		J39.8	Tracheal disease, Other
Lung disease,	16.03.05	518.8		J98.4	Lung disease, Benign
Lung disease: benign,	16.03.01	510.9		D14.3	Lung disease, Benign
Lung disease: malignant,	16.03.21	212.3		C34.9	Lung disease, Malignant
Airway disease,	16.09.00	519.8		J98.8	Airway disease,
Asthma,	16.03.10	493.9		J45.9	Lung disease, Benign
Lower respiratory tract infection,	16.03.02	162.9		J98.8	Pneumonia
Traumatic injury of tracheobronchial tree or lungs,	10.90.24	519.1		J98.0	Tracheal disease, Other
Acquired bronchial disease,	16.08.00	519.1		J98.0	Thoracic and-or mediastinal, Other
Bronchial fistula,	16.02.00	510.0		J86.0	Thoracic and-or mediastinal, Other
Respiratory failure,	16.30.01	518.9		J96.9	Thoracic and-or mediastinal, Other
Pneumothorax,	16.01.01	518.8		J93.9	Pneumothorax
Pleural effusion,	16.01.04	512		J90	Pleural effusion
Chylothorax,	16.01.07	511.9		J94.0	Chylothorax
Empyema,	16.01.11	457.8		J86	Empyema
Pleural disease: benign,	16.01.21	212.4		D15.7	Pleural disease, Benign
Pleural disease: malignant,	16.01.22	163.9		C38.4	Pleural disease, Malignant
Oesophageal disorder,	16.20.10	530		K22.9	Thoracic and-or mediastinal, Other
Oesophageal disease: benign,	16.20.01	211.0		D13.0	Esophageal disease, Benign
Oesophageal disease: malignant,	16.20.02	150.9		C15.9	Esophageal disease, Malignant
Mediastinal disease,	16.05.13	519.3		J98.5	Mediastinal disease

Mediastinal disease: benign,	16.05.11	212.5	D15.2	Mediastinal disease, Benign
Mediastinal disease: malignant,	16.05.12	194.9	C38.3	Mediastinal disease, Malignant
Diaphragm disease,	16.15.09	519.4	J98.6	Diaphragm disease, Other
Diaphragm disorder: acquired,	16.13.00	553.3	J98.6	Diaphragm disease, Other
Diaphragm paralysis,	16.13.20	519.4	J98.6	Diaphragm paralysis
Musculoskeletal chest pain,	10.18.52	729.9	M62.8	Miscellaneous, Other

Diagnostic codes for symptoms and signs

Symptom-sign of heart disease,	10.17.00	785.9	R09.8	Miscellaneous, Other
Syncope,	10.40.01	780.2	R55	Miscellaneous, Other
Cyanosis,	10.17.03	782.5	R23.0	Miscellaneous, Other
Heart failure,	10.17.05	428.9	I50.9	Cardiac, Other
Cyanotic spells,	10.17.12	785.9	R09.8	Cardiac, Other
Palpitations,	10.17.13	785.1	R00.2	Miscellaneous, Other
Chest pain,	10.12.42	786.5	R07.4	Miscellaneous, Other
Failure to thrive,	10.12.39	783.4	R62.8	Miscellaneous, Other
Hypotension,	10.40.30	458.9	I95.9	Miscellaneous, Other
Angina pectoris,	10.12.51	413	I20.9	Cardiac, Other
Shock,	10.17.23	785.5	R57.9	Miscellaneous, Other
Cardiac symptom without pathology,	10.17.09	785.9	R09.8	

Diagnostic codes for Preoperative Risk Factors

No pre-procedural risk factors,	10.20.00	nc	nc	None
Preprocedural risk factor,	10.20.19	nc	nc	Other preoperative risk factor
Weight less than 2.5 kg,	10.22.07	765.1	P07.1	Other preoperative risk factor
Obesity (Body Mass Index over 30),	14.03.59	278.0	E66.9	Other preoperative risk factor
Preprocedural arrhythmia,	10.20.03	427.9	I49.9	Preoperative arrhythmia
Preprocedural complete atrioventricular block,	11.06.35	426.0	I44.2	Preoperative complete AV block
Preprocedural shock,	10.20.02	785.5	R57.0	Preoperative shock
Preprocedural shock at time of surgery (persistent),	10.20.31	785.5	R57.0	Preoperative shock - persistent
Preprocedural shock resolved by time of surgery,	10.20.32	785.5	R57.0	Preoperative shock - resolved
Preprocedural cardiopulmonary resuscitation (less than 48 hours),	10.20.33	427.5	I46.9	Preoperative shock
Preprocedural acidosis,	10.20.05	278.9	E87.8	Preoperative acidosis
Preprocedural myocardial dysfunction,	10.20.34	429.8	I51.8	Other preoperative risk factor
Preprocedural pulmonary hypertension,	10.20.16	518.5	J95.8	Preoperative pulmonary hypertensive crises (PA pressure > systemic pressure)
Preprocedural pulmonary hypertension (pulmonary pressure more than or equal to systemic pressure): echo data,	10.20.45	518.5	J95.8	arterial pressure) - Data source = ECHO
Preprocedural pulmonary hypertension (pulmonary pressure more than or equal to systemic pressure): catheter data,	10.20.46	518.5	J95.8	arterial pressure) - Data source = CATH
Elevated lung resistance for biventricular repair (over 6 Wood units),	10.13.63	416.8	I27.8	Other preoperative risk factor
Elevated lung resistance for heart transplant (over 4 Wood units),	10.13.64	416.8	I27.8	Other preoperative risk factor
Elevated lung resistance for univentricular repair (over 2 Wood units),	10.13.65	416.8	I27.8	Other preoperative risk factor
Preprocedural respiratory syncytial virus (RSV) infection,	10.20.37	465.9	J12.1	Other preoperative risk factor
Preprocedural mechanical ventilatory support,	10.20.14	V46.1	Z99.1	Preoperative mechanical ventilatory support
Preprocedural tracheostomy,	10.20.17	V44.0	Z93.0	Preoperative tracheostomy
Preprocedural renal failure (creatinine over 176micromol/l),	10.20.07	584.9	N17.9	Preoperative renal failure (creatinine > 2)
Preprocedural renal failure requiring dialysis,	10.20.08	V45.1	Z99.2	Preoperative renal failure requiring dialysis
Preprocedural necrotising enterocolitis: treated medically,	10.20.38	777.5	P77	Other preoperative risk factor
Preprocedural necrotising enterocolitis: treated surgically,	10.20.39	777.5	P77	Other preoperative risk factor
Preprocedural coagulation disorder,	10.20.06	286.9	D68.9	Preoperative bleeding disorder
Preprocedural mechanical circulatory support,	10.20.15	V46.8	Z99.8	Preoperative mechanical circulatory support (IABP, VAD, ECMO, or CPB)
Preprocedural septicaemia,	10.20.09	038.9	A41.9	Preoperative septicemia
Preprocedural endocarditis,	10.06.65	421.0	I33.0	Preoperative endocarditis
Preprocedural neurological impairment,	10.20.12	348.9	G93.9	Preoperative neurological deficit
Preprocedural seizures,	10.20.18	345.9	R56.8	Preoperative seizures
Preprocedural cerebral abnormality on imaging,	10.20.13	793	R90.8	Other preoperative risk factor
Diabetes mellitus,	14.03.90	250.0	E14	Other preoperative risk factor
Hypothyroidism,	14.03.52	244.9	E03.9	Other preoperative risk factor
Hyperthyroidism,	14.03.75	242.9	E05.9	Other preoperative risk factor
Smoking: tobacco use,	14.04.70	V15.8	Z72.0	Other preoperative risk factor

Codes for diagnostic procedures

Clinical evaluation of patient,	13.00.01			
Diagnostic investigation,	13.00.02			
Electrocardiogram (ECG),	13.00.10			
Ambulatory electrocardiography (ECG) recording,	13.00.17			
24 hour electrocardiogram (ECG) recording,	13.00.11			
Insertable electrocardiogram (ECG) loop recorder (e.g. Reveal) implantation,	13.00.14			
Insertable electrocardiogram (ECG) loop recorder (e.g. Reveal) removal,	13.00.15			
Arrhythmia provocation test,	13.00.50			
Tilt table testing,	13.00.27			
Exercise stress test,	13.00.13			
Cardiopulmonary exercise stress test,	13.00.16			
Ambulatory blood pressure monitoring,	13.00.36			
Chest x-ray,	13.00.21			
Echocardiographic examination,	13.01.00			
Trans thoracic echocardiographic examination,	13.01.02			Echocardiography procedure, Sedated transthoracic echocardiogram
Transoesophageal echocardiographic examination,	13.01.03			Echocardiography procedure, Sedated transesophageal echocardiogram
Epicardial echocardiographic examination,	13.01.04			
Transluminal intracardiac echocardiographic examination,	13.01.24			
Intravascular ultrasound (IVUS) examination,	13.01.27			
Transluminal intracoronary echocardiography (IVUS),	12.23.41			
Computerised tomographic scan of chest,	13.00.23			Radiology procedure on cardiac patient, Cardiac Computerized Axial Tomography (CT Scan)
Non-cardiac computed tomographic angiography on cardiac patient,	13.00.32			Radiology procedure on cardiac patient, Non-Cardiac Computerized Tomography (CT) on cardiac patient
Cardiovascular Magnetic Resonance Imaging (CMRI),	13.00.24			Radiology procedure on cardiac patient, Cardiac Magnetic Resonance Imaging (MRI)
Non-cardiovascular Magnetic Resonance Imaging on cardiac patient,	13.00.33			Radiology procedure on cardiac patient, Non-cardiac Magnetic Resonance Imaging (MRI) on cardiac patient
Myocardial perfusion scan,	13.00.31			
Exploratory procedure to assess heart,	12.32.03			
Post mortem examination of heart-lungs,	13.00.71			
Pulmonary Function Tests,	13.00.25			
Diagnostic cardiovascular catheterisation procedure,	13.05.01			
Diagnostic radiographic procedure on cardiac patient,	13.00.34			Radiology procedure on cardiac patient, Diagnostic radiology
Therapeutic radiological procedure on cardiac patient,	13.00.35			Radiology procedure on cardiac patient, Therapeutic radiology
- with sedation,	05.85.30			

Diagnostic qualifier codes

- status: post-procedure,	Q1.90.51			
- diagnosis uncertain,	Q1.90.67			
- status: post heart transplant,	Q1.91.80			Status post transplant, Heart
- status: post heart & lung(s) transplant,	Q1.91.81			Status post transplant, Heart and lung
- status: post lung(s) transplant,	Q1.91.82			Status post transplant, Lung

Codes for operations and interventions

Medical therapy for cardiovascular disease,	17.00.01			
Medical therapy for endocarditis,	17.10.02			
Cardiopulmonary bypass used during procedure,	12.00.90			
Cardiopulmonary bypass not used during procedure,	12.00.91			
Reoperation,	12.43.00			
Unplanned reoperation during current admission,	15.43.06			Reoperation during this admission (unplanned reoperation)
Cardiopulmonary bypass for non-cardiac lesion,	12.00.92			Bypass for non-cardiac lesion
Cardiac catheterisation approach (VATS),	12.40.06			VATS (video assisted thorascopic surgery)
Minimally invasive procedure,	12.40.13			Minimally invasive procedure
Robotic surgical approach,	12.40.15			Minimally invasive procedure
Median sternotomy: redo x 1-3,	12.40.29			
Median sternotomy: redo x 4 or more,	12.40.30			
Thoracotomy,	12.40.00			Thoracotomy, Other
Thoracotomy: redo,	12.40.16			Thoracotomy, Other
Cardiac incision,	12.40.99			Cardiotomy, Other
- transatrial approach,	05.08.11			
- trans-right ventricular approach,	05.08.13			

Great vein procedures

Pulmonary vein procedure,	12.00.20			Cardiac procedure, Other
Totally anomalous pulmonary venous connection repair,	12.00.00			TAPVC repair
Partially anomalous pulmonary venous connection repair,	12.00.02			PAPVC repair
Scimitar syndrome (partially anomalous pulmonary venous connection) repair,	12.00.17			PAPVC, Scimitar, Repair
Partially anomalous pulmonary venous connection repair: baffle redirection to left atrium & systemic vein translocated to right atrial appendage (Warden),	12.00.78			PAPVC repair, Baffle redirection to left atrium with systemic vein translocation (Warden) (SVC sewn to right atrial appendage)

Pulmonary vein stenosis repair,	12.00.03	Pulmonary venous stenosis repair
Pulmonary venous pathway procedure (post Senning-Mustard),	12.29.52	Cardiac procedure, Other
Systemic vein procedure,	12.00.30	Cardiac procedure, Other
Superior caval vein (SVC) procedure,	12.00.39	Cardiac procedure, Other
Inferior caval vein (IVC) procedure,	12.00.42	Cardiac procedure, Other
Anomalous systemic venous connection repair,	12.00.81	Anomalous systemic venous connection repair
Systemic venous stenosis repair,	12.00.83	Systemic venous stenosis repair
Systemic venous pathway procedure (post Senning-Mustard),	12.00.29	Cardiac procedure, Other
Coronary sinus procedure,	12.00.50	Cardiac procedure, Other
Atrial Procedures		
Right atrial procedure,	12.01.60	Cardiac procedure, Other
Left atrial procedure,	12.01.30	Cardiac procedure, Other
Cor triatriatum (divided left atrium) repair,	12.01.31	Cor triatriatum repair
Patent foramen ovale (PFO) direct closure,	12.01.53	PFO, primary closure
Interatrial communication closure,	12.01.00	ASD repair
Atrial septal defect (ASD) secundum closure,	12.01.01	ASD repair
Atrial septal defect (ASD) secundum closure with direct suture,	12.01.02	ASD repair, Primary closure
Atrial septal defect (ASD) secundum closure with patch,	12.01.03	ASD repair, Patch
Sinus venosus defect (ASD) closure,	12.01.10	ASD repair
Interatrial communication closure: partial,	12.01.08	ASD partial closure
Coronary sinus interatrial communication (ASD) repair,	12.00.55	ASD repair
Atrial fenestration closure,	12.30.41	Atrial fenestration closure
Interatrial communication creation-enlargement,	12.01.90	ASD creation-enlargement
Atrial septectomy: closed (Blalock Hanlon),	12.01.42	ASD creation-enlargement
Atrial septectomy,	12.01.43	ASD creation-enlargement
Fenestration of atrial septum,	12.30.20	Atrial septal fenestration
Atrial septation procedure,	12.01.22	ASD, Common atrium (single atrium), Septation
Atrial baffle procedure,	12.01.57	Atrial baffle procedure (non-Mustard, non-Senning)
Interatrial communication left open,	12.01.80	
Atrioventricular valvar & atrioventricular septal defect procedures		
Atrioventricular valvar repair,	12.90.01	Cardiac procedure, Other
Tricuspid valvar procedure,	12.02.00	Valve surgery, Other, Tricuspid
Tricuspid valvar annuloplasty,	12.02.04	Valve surgery, Other, Tricuspid
Tricuspid leaflet (valvoplasty) procedure,	12.02.02	Valvuloplasty, Tricuspid
Tricuspid valvar replacement,	12.02.11	Valve replacement, Tricuspid (TVR)
Tricuspid valve repair converted to tricuspid valvar replacement,	12.02.83	Valvuloplasty converted to valve replacement in the same operation, Tricuspid
Tricuspid valvar closure,	12.02.70	Valve closure, Tricuspid (exclusion, univentricular approach)
Tricuspid valvectomy,	12.02.22	Valve excision, Tricuspid (without replacement)
Ebstein's malformation of tricuspid valve repair,	12.02.09	Ebstein's repair
Mitral valvar procedure,	12.03.00	Valve surgery, Other, Mitral
Mitral valvar annuloplasty,	12.03.04	Valve surgery, Other, Mitral
Mitral leaflet (valvoplasty) procedure,	12.03.03	Valvuloplasty, Mitral
Mitral valvotomy,	12.03.01	Valve surgery, Other, Mitral
Mitral valvar replacement,	12.03.11	Valve replacement, Mitral (MVR)
Mitral valve repair converted to mitral valvar replacement,	12.03.84	Valvuloplasty converted to valve replacement in the same operation, Mitral
Supra-mitral valvar LA-ring excision,	12.01.32	Mitral stenosis, Supravalar mitral ring repair
Mitral subvalvar apparatus procedure,	12.03.19	Valve surgery, Other, Mitral
Atrioventricular valvar procedure in double inlet ventricle,	12.46.00	Cardiac procedure, Other
Atrioventricular septal defect procedure,	12.04.00	AVC (AVSD) repair
Atrioventricular septal defect (AVSD): partial (primum ASD) repair,	12.04.01	AVC (AVSD) repair, Partial (incomplete) (PAVSD)
Atrioventricular septal defect (AVSD): complete (common valve orifice) repair,	12.05.01	AVC (AVSD) repair, Complete (CAVSD)
Atrioventricular septal defect (AVSD): 'intermediate' repair,	12.05.10	AVC (AVSD) repair, Intermediate (Transitional)
Atrioventricular septal defect (AVSD): partial with isolated ventricular component (VSD) repair,	12.04.09	VSD repair
Common atrioventricular valvar leaflet (valvoplasty) procedure,	12.48.01	Valvuloplasty, Common atrioventricular valve
Atrioventricular septal defect (AVSD): right atrioventricular valvar procedure,	12.04.20	Valvuloplasty, Tricuspid
Atrioventricular septal defect (AVSD): left atrioventricular valvar procedure,	12.04.40	Valvuloplasty, Mitral
Atrioventricular septal defect (AVSD): left atrioventricular valvar replacement,	12.04.45	Valve replacement, Mitral (MVR)
Common atrioventricular valve repair converted to atrioventricular valvar replacement,	12.04.33	atrioventricular valve
Common atrioventricular valve replacement,	12.04.18	Valve replacement, Common atrioventricular valve
Atrioventricular septal defect (AVSD): suturing together superior + inferior bridging leaflets to left ventricular side of septum ('cleft'),	12.48.02	Valvuloplasty, Mitral
Atrioventricular septal defect (AVSD) & Tetralogy of Fallot repair,	12.05.11	TOF-AVC (AVSD) repair
Ventricular and ventricular septum procedures		
Right ventricular procedure,	12.06.26	Cardiac procedure, Other
Double chambered right ventricle repair,	12.06.35	DCRV repair
Right ventricular aneurysm repair,	12.06.38	Aneurysm, Ventricular, Right, Repair
Right ventricular outflow tract procedure,	12.06.00	RVOT procedure
Right ventricular outflow tract obstruction relief,	12.06.41	RVOT procedure
Subpulmonary obstruction relief,	12.08.21	RVOT procedure
1.5 ventricle repair: superior cavopulmonary (Glenn) anastomosis + right ventricular outflow tract reconstruction,	12.06.19	1 1/2 ventricular repair
Left ventricular procedure,	12.07.26	Cardiac procedure, Other
Left ventricular aneurysm repair,	12.07.37	Aneurysm, Ventricular, Left, Repair
Partial left ventriclectomy-volume reduction (Batista),	12.07.38	Partial left ventriclectomy (LV volume reduction) (Batista)
Left ventricular outflow tract procedure,	12.07.00	Cardiac procedure, Other
Left ventricular outflow tract obstruction relief,	12.07.13	Aortic stenosis, Subvalvar, Repair
Left ventricular outflow tract myectomy-myotomy,	12.07.11	Aortic stenosis, Subvalvar, Repair
Subaortic obstruction relief,	12.08.22	Aortic stenosis, Subvalvar, Repair
Subaortic fibromuscular shelf resection,	12.07.01	Aortic stenosis, Subvalvar, Repair
Left ventricular outflow tract obstruction relief: complex (Konno etc),	12.07.12	Konno procedure
Ventricular septal defect (VSD) closure,	12.08.01	VSD repair
Ventricular septal defect (VSD) closure by direct suture,	12.08.02	VSD repair, Primary closure
Ventricular septal defect (VSD) closure using patch,	12.08.03	VSD repair, Patch
Closure of multiple ventricular septal defect (VSD)s,	12.08.16	VSD multiple repair
Ventricular septal defect (VSD) enlargement/ creation,	12.08.35	VSD creation / enlargement
Ventricular septal defect (VSD) enlargement,	12.08.06	VSD creation / enlargement
Open fenestration of ventricular septal defect (VSD) patch,	12.08.19	Ventricular septal fenestration
Ventriculo-arterial valvar and great arterial procedures		
Common arterial trunk (truncus) repair,	12.11.00	Truncus Arteriosus repair
Truncal valve cusp(s) repair (valvoplasty),	12.11.34	Valvuloplasty, truncal valve
Truncal valve replacement,	12.11.41	Valve replacement, Truncal valve
Truncal valve repair converted to truncal valvar replacement,	12.11.43	Valvuloplasty converted to valve replacement in the same operation, Truncal valve
Pulmonary valvar procedure,	12.13.00	Valve surgery, Other, Pulmonic
Pulmonary valvotomy: open,	12.13.02	Valvuloplasty, Pulmonic
Pulmonary valvectomy,	12.13.12	Valve excision, Pulmonary (without replacement)
Pulmonary valve closure-oversewing,	12.13.15	Valve closure, Semilunar
Pulmonary valvar replacement (not conduit),	12.13.21	Valve replacement, Pulmonic (PVR)
Pulmonary valve repair converted to pulmonary valvar replacement,	12.13.22	Valve replacement, Pulmonic (PVR)
Pulmonary trunk band (PA band),	12.13.55	Valvuloplasty converted to valve replacement in the same operation, Pulmonic
Pulmonary trunk band removal (de-band),	12.14.02	PA banding (PAB)
Application of right & left pulmonary arterial bands,	12.14.03	PA debanding
Pulmonary artery ligation,	12.14.19	PA banding (PAB)
Pulmonary trunk arterioplasty,	12.14.31	Ligation, Pulmonary artery
Pulmonary arterioplasty/ reconstruction,	12.14.01	PA reconstruction (plasty), Main (trunk)
Pulmonary arterioplasty/ reconstruction: central (proximal to hilar bifurcation),	12.14.20	PA reconstruction (Plasty)
Pulmonary arterioplasty/ reconstruction: peripheral (at-beyond hilar bifurcation),	12.14.21	PA reconstruction (plasty), Branch, Central (within the hilar bifurcation)
Pulmonary aneurysm repair,	12.14.22	PA reconstruction (plasty), Branch, Peripheral (at or beyond the hilar bifurcation)
Pulmonary arteriovenous fistula closure,	12.15.24	Aneurysm, Pulmonary artery, Repair
Pulmonary thromboembolectomy,	12.25.07	Pulmonary AV fistula repair / occlusion
Pulmonary thromboembolectomy for acute embolus,	12.15.48	Pulmonary embolectomy
Pulmonary thromboembolectomy for chronic (longstanding) embolus,	12.15.80	Pulmonary embolectomy, Acute pulmonary embolus
Procedure involving pulmonary artery,	12.15.81	Pulmonary embolectomy, Chronic pulmonary embolus
	12.15.11	Cardiac procedure, Other
Aortic valvar procedure,	12.16.00	Valve surgery, Other, Aortic
Aortic valvotomy: closed,	12.16.04	Valvuloplasty, Aortic
Aortic valvotomy: open,	12.16.02	Valvuloplasty, Aortic
Aortic cusp(s) repair (valvoplasty),	12.16.11	Valvuloplasty, Aortic
Aortic valve closure-oversewing,	12.16.61	Valve closure, Semilunar
'Annuloplasty' of aortic valve,	12.16.14	Other annular enlargement procedure
Aortic valvar replacement,	12.16.21	Valve replacement, Aortic (AVR)
Aortic valvar replacement using homograft,	12.16.22	Valve replacement, Aortic (AVR), Homograft
Aortic valvar replacement using heterograft bioprosthesis,	12.16.28	Valve replacement, Aortic (AVR), Bioprosthetic
Aortic valvar replacement using mechanical prosthesis,	12.16.29	Valve replacement, Aortic (AVR), Mechanical
Aortic valve repair converted to aortic valvar replacement,	12.16.97	Valvuloplasty converted to valve replacement in the same operation, Aortic

Aortic root replacement (not Ross), Aortic root replacement using homograft, Aortic root replacement using mechanical prosthesis, Aortic root replacement using bioprosthesis, Aortic root replacement: valve sparing technique, Aortic root replacement + coronary artery reimplantation (Bentall), Ascending aorta replacement, Ascending aorta replacement & aortic valvar resuspension, Ross procedure: aortic valve or root replacement with pulmonary autograft & pulmonary valvar replacement, Ross-Konno procedure,	12.16.50 12.16.63 12.16.64 12.17.90 12.17.91 12.16.33 12.16.65 12.16.35 12.16.30 12.16.62	Aortic root replacement Aortic root replacement, Homograft Aortic root replacement, Mechanical Aortic root replacement, Bioprosthetic Aortic root replacement, Valve sparing Aortic root replacement Aortic aneurysm repair Aortic aneurysm repair Ross procedure Ross - Konno procedure
Aortic sinus of Valsalva procedure, Aortic sinus of Valsalva distal fistula closure, Aortic sinus of Valsalva aneurysm repair, Aorto-left ventricular tunnel closure, Aortopulmonary window closure, Pulmonary artery origin from ascending aorta (hemitruncus) repair, Supravalvar aortic stenosis repair, Aorta aneurysm repair, Aortic arch aneurysm repair, Descending aorta aneurysm repair, Abdominal aorta aneurysm repair, Aortic dissection repair, Aortopexy, Systemic arterial procedure, Vascular ring procedure, Pulmonary arterial sling repair,	12.16.80 12.16.81 12.16.85 12.16.90 12.12.01 12.14.30 12.16.40 12.16.42 12.16.66 12.16.67 12.16.68 12.16.59 12.17.31 12.22.00 12.17.11 12.17.32	Cardiac procedure, Other Sinus of Valsalva, Aneurysm repair Sinus of Valsalva, Aneurysm repair LV to aorta tunnel repair AP window repair Pulmonary artery origin from ascending aorta (hemitruncus) repair Aortic stenosis, Supravalvar, Repair Aortic aneurysm repair Aortic aneurysm repair Aortic aneurysm repair Aortic aneurysm repair Aortic dissection repair Aortopexy Peripheral vascular procedure, Other Vascular ring repair Pulmonary artery sling repair
Aortic arch repair, Coarctation-hypoplasia of aorta repair, Aortic coarctation-hypoplasia repair by resection & end to end anastomosis, Aortic coarctation-hypoplasia repair by patch aortoplasty, Aortic coarctation-hypoplasia repair by subclavian flap aortoplasty, Aortic coarctation-hypoplasia repair by resection & extended end to end anastomosis, Aortic coarctation-hypoplasia repair by resection & insertion of tube graft, Interrupted aortic arch repair,	12.18.30 12.18.00 12.18.01 12.18.02 12.18.03 12.18.10 12.18.15 12.21.00	Aortic arch repair Coartation repair Coarctation repair, End to end Coarctation repair, Patch aortoplasty Coarctation repair, Subclavian flap Coarctation repair, End to end, Extended Coarctation repair, Interposition graft Interrupted aortic arch repair
Arterial duct-ligament procedure, Arterial duct (PDA) closure, Patent arterial duct (PDA) closure: surgical,	12.24.00 12.24.10 12.24.20	Cardiac procedure, Other PDA closure PDA closure, Surgical
Fallot, double outlet ventricle and transposition procedures		
Tetralogy of Fallot repair, Tetralogy of Fallot repair with transannular patch, Tetralogy of Fallot repair without transannular patch, Right ventricle to pulmonary arterial tree conduit construction, Double outlet right ventricle with subaortic or doubly committed ventricular septal defect (VSD) & pulmonary stenosis (Fallot-type) repair, Pulmonary atresia & ventricular septal defect (VSD) (including Fallot-type) repair, Pulmonary atresia, ventricular septal defect (VSD) & systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) repair, Absent pulmonary valve syndrome (Fallot type) repair, Systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) occlusion, Systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) unifocalisation procedure,	12.26.01 12.26.13 12.26.20 12.26.01 12.27.01 12.28.01 12.28.11 12.26.21 12.25.18 12.25.00	TOF repair TOF repair, Ventriculotomy, Transanular patch TOF repair, Ventriculotomy, Nontransanular patch Conduit placement, RV to PA DORV repair Pulmonary atresia: VSD (including TOF, PA) repair Pulmonary atresia: VSD: MAPCA (psuedonuncus) repair TOF- Absent pulmonary valve repair Occlusion MAPCA(s) Unifocalization MAPCA(s)
Arterial switch procedure, Senning procedure (atrial inversion), Mustard procedure (atrial inversion), Atrial inversion procedure (Mustard or Senning) revision, Rastelli procedure: intraventricular left ventricle to aorta tunnel & right ventricle to pulmonary artery conduit, REV procedure: intraventricular left ventricle to aorta tunnel with infundibular septum resection & direct right ventricle to pulmonary trunk anastomosis, Complex transposition of great arteries repair, Aortic root translocation to over left ventricle (including Nikaidoh), Double outlet right ventricle repair, Double outlet right ventricle repair with intraventricular tunnel, Congenitally corrected transposition of great arteries repair, Arterial switch & atrial inversion procedures (double switch), Atrial inversion and Rastelli procedures, Double outlet left ventricle repair,	12.29.21 12.29.01 12.29.02 12.29.79 12.29.11 12.27.45 12.29.40 12.27.78 12.29.20 12.27.02 12.27.46 12.29.25 12.29.26 12.27.50	Arterial switch operation (ASO) Senning Mustard Atrial baffle procedure, Mustard or Senning revision Rastelli REV TGA, Other procedures (Nikaido, Kawashima, LV-PA conduit, other) Aortic root translocation over left ventricle (Including Nikaidoh procedure) DORV repair DORV, Intraventricular tunnel repair Congenitally corrected TGA repair Congenitally corrected TGA repair, Atrial Switch and ASO (Double Switch) Congenitally corrected TGA repair, Atrial Switch and Rastelli DOLV repair
Procedures for functionally univentricular heart		
Bidirectional superior cavopulmonary (Glenn) anastomosis, Bilateral bidirectional superior cavopulmonary (Glenn) anastomoses, Unidirectional superior cavopulmonary (Glenn) anastomosis, Hemi-Fontan procedure, Superior caval vein to pulmonary artery anastomosis, Fontan type procedure, Total cavopulmonary connection (TCPC), Total cavopulmonary connection (TCPC) using extracardiac inferior caval vein (IVC)-pulmonary artery conduit, Total cavopulmonary connection (TCPC) using extracardiac inferior caval vein (IVC)-pulmonary artery conduit with fenestration, Total cavopulmonary conn (TCPC) with lateral atrial tunnel, Total cavopulmonary connection (TCPC) with fenestrated lateral atrial tunnel, Fontan procedure with direct atriopulmonary anastomosis, Fontan procedure with atrioventricular connection, Fenestration of Fontan type connection, Fontan-type connection without fenestration, Fontan type procedure revision or conversion, Conversion of Fontan repair to total cavopulmonary connection, Takedown of Fontan type procedure, Takedown of total cavopulmonary connection (TCPC), Takedown of Glenn, Damus-Kaye-Stansel type procedure: pulmonary trunk to aorta end/side anastomosis, Norwood type procedure, Hypoplastic left heart biventricular repair, Ventricular septation procedure,	12.31.11 12.31.44 12.31.45 12.31.15 12.31.72 12.30.01 12.30.50 12.30.54 12.30.05 12.30.51 12.30.06 12.30.32 12.30.13 12.30.27 12.30.28 12.30.37 12.30.34 12.30.31 12.30.56 12.31.42 12.09.03 12.10.00 12.10.05 12.09.01	Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn) bidirectional Glenn) Glenn (Unidirectional cavopulmonary anastomosis) (unidirectional Glenn) Hemifontan Cardiac procedure, Other Fontan Fontan Fontan, TCPC, External conduit Fontan, TCPC, External conduit, Fenestrated Fontan, TCPC, Lateral tunnel Fontan, TCPC, Lateral tunnel, Fenestrated Fontan, Atrio-pulmonary connection Fontan, Atrio-ventricular connection Fontan, Other Fontan, Other Fontan revision or conversion (Re-do Fontan) Fontan revision or conversion (Re-do Fontan) Fontan, Other Fontan, Other Cardiac procedure, Other reconstruction) Norwood procedure HLHS biventricular repair Ventricular septation
Shunt and conduit procedures		
Systemic-to-pulmonary arterial shunt procedure, Modified Blalock interposition shunt, Modified right Blalock interposition shunt, Modified left Blalock interposition shunt, Waterston (ascending aorta-right pulmonary artery) anastomosis, Central systemic-to-pulmonary arterial interposition shunt, Closure of systemic-to-pulmonary arterial shunt, Conduit construction procedure, Right ventricle to pulmonary arterial tree conduit construction, Right ventricle to pulmonary artery valveless conduit construction (Japanese modification: 'Sano'), Left ventricle to pulmonary artery conduit construction, Ventricle to aorta conduit construction, Procedure involving constructed cardiac conduit-shunt, Replacement of cardiac conduit,	12.31.30 12.31.46 12.31.03 12.31.04 12.31.05 12.31.06 12.31.31 12.36.00 12.36.01 12.06.43 12.36.02 12.36.35 12.36.40 12.36.10	Shunt, Systemic to pulmonary Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS) Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS) Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS) Shunt, Systemic to pulmonary, Other Shunt, Systemic to pulmonary, Central (from aorta or to main pulmonary artery) Shunt, Ligation and takedown Conduit placement, Other Conduit placement, RV to PA Conduit placement, RV to PA Conduit placement, LV to PA Conduit placement, Ventricle to aorta Conduit reoperation Conduit reoperation
Coronary arterial surgical and transluminal procedures		
Anomalous coronary artery (eg ALCAPA) repair, Anomalous aortic origin of coronary artery repair, Coronary fistula procedure, Ligation of coronary fistula, Coronary arterial bypass graft (CABG) procedure, Coronary arterial procedure, Coronary arterial fistula transluminal occlusion, Transluminal intracoronary injection of thrombolytic agent, Transluminal balloon coronary angioplasty (PTCA), Transluminal coronary stent implantation, Transluminal chemical occlusion of coronary artery, Left ventricular outflow tract obstruction relief by transcatheter coronary chemical ablation,	12.23.00 12.23.80 12.23.07 12.23.11 12.23.08 12.23.09 12.23.13 12.23.30 12.23.21 12.23.38 12.23.42 12.07.19	Anomalous origin of coronary artery from pulmonary artery repair Anomalous aortic origin of coronary artery from aorta (AAOCA) repair Coronary artery procedure, Other Coronary artery fistula ligation Coronary artery bypass Coronary artery procedure, Other Coil embolisation Cardiac procedure, Other Balloon dilation Stent placement Cardiac procedure, Other Cardiac procedure, Other
Arrhythmia, transplant and miscellaneous cardiac operations		
DC cardioversion, Pacing to abolish arrhythmia, Pacemaker system placement: temporary, Pacemaker system placement: permanent, Pacemaker system placement: permanent epicardial, Pacemaker system placement: permanent endocardial, Pacemaker system placement: single chamber, Pacemaker system placement: dual chamber, Pacemaker system placement: biventricular,	12.32.14 12.35.60 12.34.60 12.34.67 12.34.63 12.34.64 12.34.50 12.34.51 12.34.52	Cardiac procedure, Other Cardiac procedure, Other Pacemaker procedure Pacemaker Implantation, Permanent Pacemaker Implantation, Permanent Pacemaker Implantation, Permanent Pacemaker Implantation, Permanent Pacemaker Implantation, Permanent Pacemaker Implantation, Permanent

Cardiac resynchronisation therapy (biventricular pacing),	12.34.73	Pacemaker Implantation, Permanent
Pulse generator box placement,	12.34.65	Pacemaker procedure
Pulse generator box replacement,	12.35.13	Pacemaker procedure
Pacemaker wire procedure,	12.34.70	Pacemaker procedure
Pacemaker wire revision procedure,	12.34.84	Pacemaker procedure
Pacemaker procedure,	12.34.68	Pacemaker procedure
Arrhythmia surgical procedure,	12.35.40	Arrhythmia surgery
Surgical localisation and mapping procedure for arrhythmia,	12.38.50	Arrhythmia surgery
Surgical ablation procedure for atrial arrhythmia,	12.35.80	Arrhythmia surgery: Atrial, Surgical ablation
Surgical ablation procedure for ventricular arrhythmia,	12.35.81	Arrhythmia surgery: Ventricular, Surgical ablation
Percutaneous radiofrequency epicardial ablation procedure for arrhythmia,	12.38.69	Arrhythmia surgery
Maze operation,	12.35.53	Arrhythmia surgery: Atrial, Surgical ablation
Cox-Maze IV procedure,	12.35.72	Arrhythmia surgery: Atrial, Surgical ablation
Implantable cardioverter & defibrillator (ICD) implantation,	12.42.31	ICD (AICD) Implantation
Implantable cardioverter & defibrillator (ICD) implantation: single chamber,	12.42.61	ICD (AICD) Implantation
Implantable cardioverter & defibrillator (ICD) implantation: dual chamber,	12.42.64	ICD (AICD) Implantation
Implantable cardioverter & defibrillator (ICD) implantation: biventricular,	12.42.65	ICD (AICD) Implantation
Implantable cardioverter & defibrillator (ICD) procedure,	12.42.39	ICD (AICD) (Automatic) implantable cardioverter defibrillator) procedure
Implantable cardioverter & defibrillator (ICD) system removal,	12.42.34	Explantation of pacing system
Removal of complete implanted cardiac pacemaker system,	12.35.14	Explantation of pacing system
Removal of implanted pacemaker lead,	12.44.75	Pacemaker procedure
Heart transplant,	12.37.01	Transplant, Heart
Transplantation of heart: orthotopic allotransplant,	12.37.02	Transplant, Heart
Transplantation of heart: heterotopic (piggy back) allotransplant,	12.37.03	Transplant, Heart
Transplantation of heart: ABO incompatible donor,	12.37.06	Transplant, Lung(s)
Lung(s) transplant,	12.37.60	Transplant, Lung(s)
Single lung transplant,	12.37.13	Transplant, Lung(s)
Double lung transplant,	12.37.20	Transplant, Lung(s)
Transplantation of heart and lungs,	12.32.13	Transplant, Heart and lung(s)
Organ procurement for transplantation,	12.37.70	Miscellaneous procedure, Other
Pericardiocentesis,	12.32.40	Pericardial drainage procedure
Pericardial drainage: open (pericardiotomy),	12.32.41	Pericardial drainage procedure
Pericardial window creation,	12.32.46	Pericardial drainage procedure
Pericardial biopsy,	12.32.53	Pericardial procedure, Other
Pericardiectomy,	12.32.09	Pericardiectomy
Procedure involving pericardium,	12.32.59	Pericardial procedure, Other
Medical management of pericardial disease,	12.33.70	
Heart tumour resection,	12.32.10	Cardiac tumor resection
Removal of cardiac vegetations,	12.32.20	Cardiac procedure, Other
Removal of cardiac thrombus,	12.32.22	Cardiac procedure, Other
Traumatic injury of heart repair,	12.33.10	Cardiac procedure, Other
Cardiac procedure,	12.32.21	Cardiac procedure, Other
Palliative procedure,	12.43.25	Palliation, Other
Peripheral vascular procedure,	12.33.51	Peripheral vascular procedure, Other
Postoperative and cardiac support procedures		
Postoperative procedure,	12.32.00	Miscellaneous procedure, Other
Delayed closure of sternum,	12.65.60	Delayed sternal closure
Postoperative procedure to control bleeding,	12.32.18	Thoracic and-or mediastinal procedure, Other
Plication of hemidiaphragm,	12.32.70	Diaphragm plication
Thoracic duct occlusion,	12.32.28	Ligation, Thoracic duct
Instigation of renal dialysis,	12.32.90	Miscellaneous procedure, Other
Cardiac support procedure,	12.87.01	Cardiac procedure, Other
Intra-aortic balloon pump (IABP) insertion,	12.87.10	Intra-aortic balloon pump (IABP) insertion
Intra-aortic balloon pump (IABP) removal: transluminal,	12.87.02	Intra-aortic balloon pump (IABP) insertion
Intra-aortic balloon pump (IABP) insertion: open,	12.87.04	Intra-aortic balloon pump (IABP) insertion
Ventricular assist device implantation,	12.87.21	Right / Left heart assist device procedure
Right ventricular assist device implantation,	12.87.22	Right / Left heart assist device procedure
Left ventricular assist device implantation,	12.87.23	Right / Left heart assist device procedure
Biventricular assist device implantation,	12.87.24	Right / Left heart assist device procedure
Ventricular assist device removal,	12.87.41	Right / Left heart assist device procedure
Cardiac support using Extracorporeal Membrane Oxygenation (ECMO) circuitry,	12.87.25	ECMO cannulation
Take down of Extracorporeal Membrane Oxygenation (ECMO) circuitry,	12.87.45	ECMO decannulation
Procedure involving Extracorporeal Membrane Oxygenation (ECMO) circuitry,	12.87.28	ECMO procedure
Operation related to transcatheter procedure,	12.33.60	Cardiac procedure, Other
Cardiomyoplasty procedure,	12.87.31	Cardiac procedure, Other
Prosthetic heart implantation,	12.37.04	Right / Left heart assist device procedure
Sterotomy wound drainage,	12.65.56	Thoracic and-or mediastinal procedure, Other
Thorax, lung and gastrointestinal procedures		
Debridement of chest wall incision,	12.65.45	Thoracic and-or mediastinal procedure, Other
Anterior chest wall (pectus) repair,	12.65.23	Pectus repair
Pectus carinatum repair,	12.65.13	Pectus repair
Pectus excavatum repair,	12.65.14	Pectus repair
Sternal wire removal from previous sternotomy,	12.65.48	Thoracic and-or mediastinal procedure, Other
Mediastinal procedure,	12.65.06	Mediastinal procedure
Mediastinal exploration,	12.65.05	Mediastinal exploration
Insertion of mediastinal tube drain,	12.32.83	Sterotomy wound drainage
Pleural procedure,	12.65.89	Pleural procedure, Other
Insertion of pleural tube drain,	12.32.80	Pleural drainage procedure
Pleurodesis,	12.65.82	Pleural procedure, Other
Parietal pleurectomy,	12.32.17	Pleural procedure, Other
Open excision of pleural lesion,	12.65.72	Pleural procedure, Other
Bronchoscopy,	12.64.00	Bronchoscopy
Bronchoscopic removal of foreign body,	12.64.08	Bronchoscopy
Tracheal procedure,	12.64.20	Tracheal procedure
Tracheostomy creation,	12.64.21	Postoperative tracheostomy
Tracheobronchial reconstruction procedure,	12.64.40	Tracheal procedure
Lung procedure,	12.66.00	Lung procedure, Other
Lung biopsy procedure,	12.32.06	Lung biopsy
Lung decortication,	12.66.01	Decortication
Lung mass excision,	12.66.02	Lung procedure, Other
Lung lobectomy,	12.66.05	Lung procedure, Other
Pneumectomy,	12.66.06	Lung procedure, Other
Lung sequestration repair,	12.66.07	Lung procedure, Other
Thoracic-mediastinal procedure,	12.80.00	Thoracic and-or mediastinal procedure, Other
Oesophageal procedure,	12.80.01	Thoracic and-or mediastinal procedure, Other
Diaphragm procedure,	12.32.29	Diaphragm procedure, Other
Intestinal procedure,	12.80.10	Miscellaneous procedure, Other
Percutaneous feeding gastrostomy tube placement (PEG),	12.80.37	Miscellaneous procedure, Other
Laparotomy,	12.80.38	Miscellaneous procedure, Other
Non-cardiothoracic-vascular procedure,	12.33.52	Miscellaneous procedure, Other
Non-cardiothoracic-vascular procedure on cardiac patient under cardiac anaesthesia,	12.33.53	Non-cardiovascular, Non-thoracic procedure on cardiac patient with cardiac
Hybrid procedures: operative & transcatheter approaches		
Hybrid approach (combined surgical & transluminal),	12.41.30	Cardiac procedure, Other
Transapical aortic valve implantation (hybrid approach),	12.13.84	Stent placement
Intraoperative ventricular septal defect (VSD) closure with transluminal device (hybrid approach),	12.08.28	VSD repair, Device
Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery),	12.20.21	Cardiac procedure, Other
Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery): stage 1,	12.20.20	Hybrid Approach "Stage 1"
Application of bilateral pulmonary arterial bands & transcatheter placement of stent in arterial duct,	12.10.04	Cardiac procedure, Other
Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery) 'stage 2': aortopulmonary amalgamation + superior cavopulmonary anastomosis(es) + debanding of pulmonary arteries + arch repair,	12.20.23	Cavopulmonary anastomosis(es) + PA Debanding + Aortic arch repair (Norwood [Stage 1] + Superior Cavopulmonary anastomosis(es) + PA Debanding)
Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery) 'stage 2': aortopulmonary amalgamation + superior cavopulmonary anastomosis(es) + debanding of pulmonary arteries,	12.20.22	Hybrid approach "Stage 2", Aortopulmonary amalgamation + Superior Cavopulmonary anastomosis(es) + PA Debanding + Without aortic arch repair
Transcatheter procedures		
Cardiovascular catheter procedure,	12.45.00	Cardiovascular catheterization procedure
Therapeutic cardiovascular catheter procedure,	12.45.28	Cardiovascular catheterization procedure, Therapeutic
Diagnostic cardiovascular catheterisation procedure,	13.05.01	Cardiovascular catheterization procedure, Diagnostic
Diagnostic cardiovascular catheterisation procedure: angiographic data obtained,	13.05.05	obtained
Diagnostic cardiovascular catheterisation procedure with haemodynamic alteration (challenge),	13.05.07	Cardiovascular catheterization procedure, Diagnostic, Hemodynamic alteration
Diagnostic cardiovascular catheterisation procedure: haemodynamic data obtained,	13.05.06	obtained
Transluminal diagnostic test occlusion,	12.45.07	Cardiovascular catheterization procedure, Diagnostic, Transluminal test occlusion
Transluminal procedure using adjunctive therapy,	12.45.59	Cardiovascular catheterization procedure, Therapeutic, Adjunctive therapy
Electrophysiological study (EPS),	13.05.12	Cardiovascular electrophysiological catheterization procedure
Electrophysiological study (EPS) with three dimensional mapping,	13.05.17	Cardiovascular electrophysiological catheterization procedure

Procedure related complications

No postprocedural complications,	15.90.03				None	
Procedure related complication,	15.90.14	998.9	T81.8		Other postoperative complication	
Postprocedural complication,	15.90.01	998.9	T81.8		Other postoperative complication	
Complication during period of anaesthetic care,	15.90.20	995.2	T88.5		Other postoperative complication	
Medication related complication or error,	15.59.00	E858.9	Y63.9		Other postoperative complication	
Complication related to echocardiographic procedure,	15.58.01	E879.8	Y64.8		Other postoperative complication	
Vascular line (access) related complication,	15.86.00	E876.9	Y65.8		Other postoperative complication	
Intraoperative death,	12.33.31				Intraoperative death	
Death within 30 days of procedure,	12.33.33					
Death unrelated to cardiac procedure,	12.33.34					
Death attributable to complications following premature birth,	15.90.85					
Death attributable to complication(s) following congenital cardiac procedure,	15.90.86					
Cardiac arrest during procedure,	15.00.01	997.1	T81.8		Arrhythmia	
Cardiac arrest following procedure,	15.00.02	997.1	I87.8		Postoperative cardiac arrest	
Postprocedural low cardiac output,	15.00.03	997.1	I87.1		Postoperative low cardiac output	
Cardiopulmonary bypass complication,	15.77.00	996.1	T82.8		Other postoperative complication	
Postprocedural requirement for mechanical circulatory support,	15.00.09	997.1	I87.8		Postoperative mechanical circulatory support (IABP, VAD, ECMO, or CPS)	
Myocardial infarction following procedure,	15.00.05	997.1	I87.8	I21	Myocardial infarction	
Postprocedural hypovolaemia,	15.00.30	998.0	T81.1		Other postoperative complication	
Arrhythmia following procedure,	15.60.02	997.1	I87.8	H49.9	Postoperative arrhythmia	
Postprocedural complete atrioventricular block,	11.06.17	997.1	H44.2		Arrhythmia, Heart block, Acquired	
Procedure related complete atrioventricular block requiring temporary pacing,	11.06.32	997.1	H44.2	Y83.8	Postoperative complete AV block requiring temporary pacemaker	
Procedure related complete atrioventricular block requiring permanent pacemaker system,	11.06.33	997.1	H44.2	Y83.8	Postoperative complete AV block requiring permanent pacemaker	
Junctional ectopic tachycardia (His bundle): post-op,	11.04.12	997.1	I87.1		Postoperative arrhythmia	
Postprocedural haemorrhage,	15.02.00	998.1	T81.0		Postoperative bleeding	
Postprocedural haemorrhage requiring reoperation,	15.02.65	998.1	T81.0		Postoperative bleeding	
Postprocedural coagulopathy,	15.02.03	286.9	E878.8	D68.9	Y83.8	Other postoperative complication
Postprocedural haemolysis,	15.02.07	283.1	E878.8	D59.8	Y83.8	Other postoperative complication

General systemic complication of cardiac procedure,	15.80.00	998.9		T81.9		Other postoperative complication
Multiple organ dysfunction syndrome (MODS),	15.80.16	998.9		T81.9		Other postoperative complication
Postprocedural metabolic derangement,	15.80.01	277.9	E878.8	E88.9	Y83.8	Other postoperative complication
Postprocedural acidosis,	15.80.15	276.2	E878.8	E87.2	Y83.8	Postoperative acidosis
Postprocedural septicæmia,	15.80.05	998.5		T81.4		Postoperative septicæmia
Capillary leak syndrome,	15.80.06	998.8		T81.8		Other postoperative complication
Systemic inflammatory response syndrome (SIRS),	15.80.19	998.0		T81.1		Other postoperative complication
Pulmonary and thoracic complications						
Respiratory complication after cardiac procedure,	15.80.20	997.3		J95.9		Other postoperative complication
Postprocedural requirement for mechanical respiratory support more than 7 days,	15.80.32	518.5		J95.3		days
Postprocedural requirement for reintubation,	15.80.33	518.5		J95.1		Postoperative respiratory insufficiency requiring reintubation
Postprocedural pulmonary infection,	15.80.21	997.3		J95.8	J22	Pneumonia
Postprocedural lung collapse (atelectasis),	15.80.31	518.0	E878.8	J98.1	Y83.8	Other postoperative complication
Residual pulmonary hypertension after relief of left to right shunt,	15.22.31	416.8	E878.8	I27.8	Y83.8	Other postoperative complication
Postprocedural pulmonary hypertensive crises,	15.80.22	416.8	E878.8	I27.8	Y83.8	Postoperative pulmonary hypertension crises (PA pressure > systemic pressure)
Postprocedural pleural effusion,	15.80.50	511.9	E878.8	J90	Y83.8	Pleural effusion
Postprocedural right pleural effusion,	15.80.51	511.9	E878.8	J90	Y83.8	Pleural effusion
Postprocedural left pleural effusion,	15.80.52	511.9	E878.8	J90	Y83.8	Pleural effusion
Pleural effusion requiring drainage,	15.80.61	511.9		J90		Pleural effusion requiring drainage
Postprocedural chylothorax,	15.80.55	457.8	E878.8	J94.0	Y83.8	Chylothorax
Postprocedural hæmothorax,	15.80.56	998.1		T81.0		Pleural effusion
Postprocedural pneumothorax,	15.80.62	512	E878.8	J93.9	Y83.8	Pneumothorax
Postprocedural Acute Respiratory Distress Syndrome (ARDS),	15.80.29	518.5		J80		Other postoperative complication
Postprocedural requirement for tracheostomy,	15.80.86	997.3		J95.3		Other postoperative complication
Postprocedural complication involving tracheo-bronchial tree,	15.80.70	519.1	997.3	J96.0	Y83.8	Tracheal disease, Other
Postprocedural bronchial compression,	15.80.87	519.1	997.3	J96.0	J95.8	Other postoperative complication
Complication following respiratory tract stent implantation,	16.50.20	519.8		J95.8		Other postoperative complication
Intraprocedural phrenic nerve injury (paralyzed diaphragm),	15.80.90	519.4		J96.6		Phrenic nerve injury/paralyzed diaphragm
Intraprocedural recurrent laryngeal nerve injury (palsy),	15.80.93	352.3	998.2	G52.2	T81.2	Recurrent laryngeal nerve injury/paralyzed vocal cord
Postprocedural Homer's syndrome,	15.80.94	337.9	998.2	G90.2	T81.2	Other postoperative complication
Renal, gastrointestinal and neurological complications						
Postprocedural renal failure,	15.82.00	997.5		N99.0		Other postoperative complication
Renal failure requiring temporary dialysis,	15.82.06	997.5		N99.0		Acute renal failure requiring temporary dialysis
Renal failure requiring permanent dialysis,	15.82.07	997.5		N99.0		Acute renal failure requiring permanent dialysis
Postprocedural gastrointestinal bleeding,	15.82.21	579.9	997.4	K92.2	Y83.8	Other postoperative complication
Postprocedural inability to sustain gastric feeding,	15.82.23	997.4		K91.8		Other postoperative complication
Postprocedural feeding difficulties,	15.82.38	997.4		K91.8		Other postoperative complication
Postprocedural intestinal obstruction,	15.82.28	997.4		K91.3		Other postoperative complication
Postprocedural necrotising enterocolitis,	15.82.30	997.4	K55.0	Y83.8		Other postoperative complication
Postprocedural peritonitis,	15.82.29	567.9	997.4	K65.0	Y83.8	Other postoperative complication
Pseudomembranous colitis,	15.82.32	8.4		A04.7		Other postoperative complication
Postprocedural protein losing enteropathy,	15.82.33	579.8	E878.8	K90.4	Y83.8	Other postoperative complication
Postprocedural hepatic impairment,	15.82.43	997.4		K72.0	Y83.8	Other postoperative complication
Postprocedural acute pancreatitis,	15.82.47	577.0	997.4	K85	Y83.8	Other postoperative complication
Neurological complication after cardiac procedure,	15.82.50	997.0		G97.9		Other postoperative complication
Postprocedural new onset seizures,	15.82.67	345.9	997.0	G40.9	Y83.8	Postoperative new onset seizures
Postprocedural generalised seizures,	15.82.51	345.1	997.0	G40.3	Y83.8	Postoperative new onset seizures
Postprocedural temporary neurological impairment,	15.82.53	997.0		G97.8		Postoperative neurological deficit - transient
Postprocedural permanent neurological impairment,	15.82.57	997.0		G97.8		Postoperative neurological deficit persisting at discharge
Postprocedural neurological impairment persisting at discharge,	15.82.68	997.0		G97.8		Postoperative neurological deficit persisting at discharge
Postprocedural brain death,	15.82.64	997.0		G97.8		Other postoperative complication
Postprocedural cerebral abscess,	15.82.66	324.0	997.0	G06.0	Y83.8	Other postoperative complication
Postprocedural cerebral abnormality on imaging,	15.82.81	997.0	793	G97.8	R90.8	Other postoperative complication
Brain abscess,	14.03.40	324.0		G06.0		
Wound and pericardial complications						
Median sternotomy complication,	15.03.00	998.9		T81.9		Other postoperative complication
Infection of median sternotomy wound,	15.03.03	998.5		T81.4		Other postoperative complication
Keloid-hypertrophic scar of median sternotomy wound,	15.03.15	701.4		L91.0		Other postoperative complication
Dehiscence of median sternotomy wound,	15.03.08	998.3		T81.3		Sternal dehiscence
Lateral thoracotomy complication,	15.03.30	998.9		T81.9		Other postoperative complication
Infection of lateral thoracotomy wound,	15.03.32	998.5		T81.4		Other postoperative complication
Wound related complication,	15.67.38	998.9		T81.9		Other postoperative complication
Wound dehiscence,	15.03.51	998.3		T81.3		Wound dehiscence
Wound infection,	15.03.50	998.9		T81.4		Wound infection
Wound infection requiring surgical intervention,	15.67.41	998.9		T81.4		Wound infection
Mediastinitis,	15.03.52	519.2		J98.5		Mediastinitis
Postpericardiotomy syndrome,	10.08.11	429.4		I87.0		Pericardial effusion
Pericardial effusion requiring drainage,	15.83.00	423.9		I1.3		Pericardial effusion requiring drainage
Cardiac tamponade,	10.08.13	423.9		I1.9		Pericardial effusion requiring drainage
Catheterisation and support device complications						
Cardiac catheterisation complication,	15.50.00	998.9	E879.0	T81.9	Y84.0	Other postoperative complication
Intramyocardial injection of contrast medium,	15.50.01	E870.6		Y60.5		Other postoperative complication
Lost pulse after cardiac catheterisation,	15.50.11	997.2	E879.0	T81.7	Y84.0	Other postoperative complication
Postprocedural femoral arterial complication,	15.24.20	997.2		I87.8		Peripheral vascular, Other
Perforation of cardiac chamber-vessel during cardiac catheterisation,	15.50.03	998.2	E870.6	T81.2	Y60.5	Other postoperative complication
Equipment problem during cardiac catheterisation,	15.50.30	996.1	E874.5	T82.5		Other postoperative complication
Embolisation of catheter introduced device,	15.50.37	996.7	E871.6	T82.8		Other postoperative complication
Complication involving device implantation,	15.50.60	996.1	E874.5	T82.5		Other postoperative complication
Complication involving stent,	15.50.70	996.7	E874.5	T82.8		Other postoperative complication
Failed attempt to implant coil-device during transcatheter intervention,	15.50.40	E874.5		T82.8		Other postoperative complication
Intraaortic balloon pump (IABP) complication,	15.57.21	996.1		T82.9		Other postoperative complication
Extracorporeal Membrane Oxygenation (ECMO) circuit complication,	15.57.02	996.1		T82.9		Other postoperative complication
Ventricular assist device complication,	15.57.03	996.1		T82.9		Other postoperative complication
Fetal Specific Short List Codes						
Fetal abnormality,	14.10.01	655.9		O35.9		
Increased nuchal thickness,	14.10.12	655.9		O28.3		
Intrauterine growth restriction (retardation),	14.10.34	764.9		P05.9		
Fetal fluid retention,	14.12.20	778.5		P83.3		
Fetal hydrops,	14.10.02	778.0		P83.2		
Fetal heart failure,	14.10.98	655.9		O28.3		
Fetal heart failure due to extracardiac disease,	14.10.99	655.9		O28.3		
Twin-to-twin transfusion syndrome,	14.10.11	762.3		P02.3		
Fetal arrhythmia,	14.10.06	768.2		O35.8		
Fetal cardiomegaly,	14.10.95	655.9		O28.3		
Abnormal fetal Cardiovascular Profile Score (Huhta),	14.13.52	655.9		O28.3		
Fetal infection,	14.05.41	771.8		P39.9		
Fetal cardiac abnormality not detected,	14.10.00					
Fetal echocardiographic examination,	13.01.01					
Satisfactory fetal cardiac images,	13.01.89					
Inadequate fetal cardiac images,	13.01.90					
Transabdominal fetal echocardiographic examination,	13.01.25					
Transvaginal fetal echocardiographic examination,	13.01.26					
Fetal echocardiographic abnormality,	14.10.25	655.9		O28.3		
Fetal structural heart abnormality,	14.10.60	655.9		O28.3		
Fetal echogenic focus (golf ball),	14.10.08	655.9		O28.3		
Fetal venous Doppler flow(s) abnormal for gestational age,	14.10.26	655.9		O28.3		
Fetal unexplained right heart dominance,	14.10.07	655.9		O28.3		
Fetal unexplained left heart dominance,	14.10.45	655.9		O28.3		
Fetal abnormal 4 chamber view,	14.10.52	655.9		O28.3		
Fetal abnormal great arterial view,	14.10.53	655.9		O28.3		
Fetal arterial Doppler flow(s) abnormal for gestational age,	14.11.40	655.9		O28.3		
Fetal aortic arch flow abnormal for gestational age,	14.11.41	655.9		O28.3		
Fetal reversal of aortic arch blood flow for gestational age,	14.11.42	655.9		O28.3		
Fetal ductal arch flow abnormal for gestational age,	14.11.43	655.9		O28.3		
Fetal reversal of ductal arch blood flow for gestational age,	14.11.44	655.9		O28.3		
Fetal failure of right ventricular growth,	14.10.90	655.9		O28.3		
Fetal progression of right ventricular outflow tract obstruction,	14.10.27	655.9		O28.3		
Fetal failure of left ventricular growth,	14.10.91	655.9		O28.3		
Fetal progression of left ventricular outflow tract obstruction,	14.10.28	655.9		O28.3		
Fetal heart muscle abnormality,	14.11.80	425.4		M2.9		
Fetal cardiomyopathy,	14.11.81	425.4		M2.9		
Fetal ventricular dysfunction,	14.11.87	429.8		I51.8		

Fetal outcomes

Spontaneous abortion-miscarriage (under 24 wks),	14.10.35	761.8	P01.8	
Stillbirth (over 24 wks),	14.10.36	779.9	P95	
Termination of pregnancy procedure,	14.10.37	635	O04	Miscellaneous procedure, Other
Terminated pregnancy (with respect to fetus),	14.10.38	779.6	P96.4	
In utero death,	14.10.18	779.9	Q36.4	
Liveborn,	14.10.72			
Selective feticide in multiple pregnancy,	14.10.73	779.6	P96.4	Miscellaneous procedure, Other

Fetal interventions

Fetal procedure,	12.45.90			Miscellaneous procedure, Other
Division of placental communicating vessels in twin-to-twin transfusion syndrome by laser coagulation,	12.45.91			Other postoperative complication
Fetal transluminal catheter procedure,	12.45.70			Miscellaneous procedure, Other
Fetal balloon pulmonary valvotomy,	12.45.71			Cardiac procedure, Other
Fetal balloon aortic valvotomy,	12.45.73			Balloon dilation
Fetal pericardiocentesis: transcatheter,	12.45.75			Balloon dilation
Fetal balloon atrial septostomy,	12.45.76			Pericardial drainage procedure
				Balloon dilation

Fetal intervention complications

Fetal intervention complication,	15.50.80			Other postoperative complication
Preterm delivery immediately following fetal intervention,	15.50.81			Other postoperative complication
Failed fetal procedure,	15.50.83			Other postoperative complication
Fetal death following fetal cardiac procedure,	15.50.86			Other postoperative complication

Appendix - EPCC to STS/EACTS boxed terms

Each STS/EACTS term requires two or more EPCC terms to be equivalent
Note that subcategories of EPCC item will also map to single STS/EACTS item: e.g. TGA + all types of VSD will map to TGA, VSD

Diagnostic combined terms

Functionally univentricular heart, Visceral heterotaxy (abnormal arrangement thoraco-abdominal organs),	01.01.22 03.01.02	746.9 746.9	Q20.9 Q20.9	Single ventricle, Heterotaxia syndrome
Functionally univentricular heart, Right isomerism ('asplenia'),	01.01.22 03.01.04	746.9 746.8	Q20.9 Q20.6	Single ventricle, Heterotaxia syndrome
Functionally univentricular heart, Left isomerism ('polysplenia'),	01.01.22 03.01.05	746.9 746.8	Q20.9 Q20.6	Single ventricle, Heterotaxia syndrome
Mitral atresia, Functionally univentricular heart,	06.02.01 01.01.22	746.8 746.9	Q23.2 Q20.9	Single ventricle, Mitral atresia
Tricuspid atresia, Functionally univentricular heart,	06.01.01 01.01.22	746.1 746.9	Q22.4 Q20.9	Single ventricle, Tricuspid atresia
AVSD with ventricular imbalance, Functionally univentricular heart,	06.07.26 01.01.22	745.6 746.9	Q21.2 Q20.9	Single ventricle, Unbalanced AV Canal
Functionally univentricular heart, Totally anomalous pulmonary venous connection,	01.01.22 04.08.05	746.9 747.4	Q20.9 Q26.2	Single ventricle + Total anomalous pulmonary venous connection (TAPVC)
Complete transposition of great arteries (IVS), LV outflow tract obstruction,	01.01.02 07.09.01	745.1 746.8	Q20.3 Q24.8	TGA, IVS - LVOTO
Discordant VA connections (TGA), VSD,	01.05.01 07.10.00	745.1 745.4	Q20.3 Q21.0	TGA, VSD
Discordant VA connections (TGA), VSD, LV outflow tract obstruction,	01.05.01 07.10.00 07.09.01	745.1 745.4 746.8	Q20.3 Q21.0 Q24.8	TGA, VSD - LVOTO
Double outlet right ventricle, Atrioventricular septal defect,	01.01.04 06.06.00	746.8 745.6	Q20.1 Q21.2	DORV + AVSD (AV canal)
Tricuspid regurgitation, Tricuspid stenosis,	06.01.91 06.01.92	746.8 746.1	Q22.8 Q22.4	Tricuspid regurgitation and tricuspid stenosis
Mitral regurgitation, Mitral stenosis,	06.02.91 06.02.92	746.6 746.5	Q23.3 Q23.2	Mitral regurgitation and stenosis
Pulmonary stenosis, Pulmonary regurgitation,	09.05.92 09.05.91	746.0 746.0	Q22.1 Q22.2	Pulmonary insufficiency and pulmonary stenosis
Supravalvar pulmonary trunk stenosis, Pulmonary trunk hypoplasia,	09.07.13 09.07.11	747.3 747.3	Q25.6 Q25.7	Pulmonary artery stenosis (Hypoplasia), Main (Trunk)
Aortic regurgitation, Aortic stenosis,	09.15.91 09.15.92	746.4 746.3	Q23.1 Q23.0	Aortic insufficiency + aortic stenosis
Aortic regurgitation, Mitral regurgitation,	09.15.91 06.02.91	746.4 746.6	Q23.1 Q23.3	Aortic insufficiency + mitral regurgitation
Aortic regurgitation, Mitral regurgitation, Mitral stenosis,	09.15.91 06.02.91 06.02.92	746.4 746.6 746.5	Q23.1 Q23.3 Q23.2	Aortic insufficiency + Mitral regurgitation and mitral stenosis
Aortic regurgitation, Mitral stenosis,	09.15.91 06.02.92	746.4 746.5	Q23.1 Q23.2	Aortic insufficiency + mitral stenosis
Aortic regurgitation, Aortic stenosis, Mitral regurgitation,	09.15.91 09.15.92 06.02.91	746.4 746.3 746.6	Q23.1 Q23.0 Q23.3	Aortic insufficiency and aortic stenosis + mitral regurgitation
Aortic regurgitation, Aortic stenosis, Mitral regurgitation, Mitral stenosis,	09.15.91 09.15.92 06.02.91 06.02.92	746.4 746.3 746.6 746.5	Q23.1 Q23.0 Q23.3 Q23.2	Aortic insufficiency and aortic stenosis + Mitral regurgitation and mitral stenosis
Aortic regurgitation, Aortic stenosis, Mitral stenosis,	09.15.91 09.15.92 06.02.92	746.4 746.3 746.5	Q23.1 Q23.0 Q23.2	Aortic insufficiency and aortic stenosis + mitral stenosis
Aortic stenosis, Mitral regurgitation,	09.15.92 06.02.91	746.3 746.6	Q23.0 Q23.3	Aortic stenosis and mitral regurgitation
Aortic stenosis, Mitral regurgitation, Mitral stenosis,	09.15.92 06.02.91 06.02.92	746.3 746.6 746.5	Q23.0 Q23.3 Q23.2	Aortic stenosis + Mitral regurgitation and mitral stenosis
Aortic stenosis, Mitral stenosis,	09.15.92 06.02.92	746.3 746.5	Q23.0 Q23.2	Aortic stenosis + mitral stenosis
Aortic valvar abnormality, Mitral valvar abnormality,	09.15.00 06.02.00	746.9 746.9	Q23.9 Q23.9	Aortic valve, Other + Mitral valve, Other
Pulmonary atresia + intact ventricular septum, Coronary arterial abnormality,	01.01.07 09.46.00	746.0 746.8	Q22.0 Q24.5	Pulmonary atresia, IVS + Coronary artery anomalies
VSD, Aortic arch hypoplasia (tubular),	07.10.00 09.29.11	745.4 747.2	Q21.0 Q25.4	VSD + Aortic arch hypoplasia
VSD, Aortic coarctation,	07.10.00 09.29.01	745.4 747.1	Q21.0 Q25.1	VSD + Coarctation of aorta

Congenitally corrected transposition of great arteries (discordant AV & VA connections), Intact ventricular septum,	01.01.03 07.21.00	745.1 nc	Q20.5 nc
Congenitally corrected transposition of great arteries (discordant AV & VA connections), Intact ventricular septum, Left ventricular outflow tract obstruction,	01.01.03 07.21.00 07.09.01	745.1 nc 746.8	Q20.5 nc Q24.8
Congenitally corrected transposition of great arteries (discordant AV & VA connections), VSD,	01.01.03 07.10.00	745.1 745.4	Q20.5 Q21.0
Congenitally corrected transposition of great arteries (discordant AV & VA connections), VSD, Left ventricular outflow tract obstruction,	01.01.03 07.10.00 07.09.01	745.1 745.4 746.8	Q20.5 Q21.0 Q24.8
Interrupted aortic arch, VSD,	09.29.31 07.10.00	747.1 745.4	Q25.4 Q21.0
Interrupted aortic arch, Aortopulmonary window,	09.29.31 09.04.01	747.1 745.0	Q25.4 Q21.4
Common arterial trunk (truncus arteriosus), Interrupted aortic arch,	09.01.01 09.29.31	745.0 747.1	Q20.0 Q25.4
Tetralogy of Fallot, Pulmonary stenosis,	01.01.01 09.05.92	745.2 746.0	Q21.3 Q22.1

Procedural combined terms

VSD closure, ASD closure,	12.08.01 12.01.01
VSD closure, Pulmonary trunk band removal (de-band),	12.08.01 12.14.03
Mitral valve replacement, Aortic valve replacement,	12.03.11 12.16.21
Aortic valve repair converted to aortic valve replacement, Ross procedure: aortic valve or root replacement with pulmonary autograft & pulmonary valve replacement,	12.16.97 12.16.30
Aortic valve repair converted to aortic valve replacement, Ross-Konno procedure,	12.16.97 12.16.62
Tetralogy of Fallot repair, Transatrial approach,	12.26.01 12.08.11
Tetralogy of Fallot repair with transannular patch, Trans-RV approach,	12.26.13 12.08.12
Tetralogy of Fallot repair without transannular patch, Trans-RV approach,	12.26.20 12.08.12
Tetralogy of Fallot repair, RV to pulmonary artery conduit construction,	12.26.01 12.36.01
Arterial switch procedure, VSD closure,	12.29.21 12.08.01
Arterial switch procedure, Aortic arch repair,	12.29.21 12.18.30
Arterial switch procedure, VSD closure, Aortic arch repair,	12.29.21 12.08.01 12.18.30
Congenitally corrected TGA repair, VSD closure,	12.27.46 12.08.01
Congenitally corrected TGA repair, VSD closure, LV to pulmonary artery conduit construction,	12.27.46 12.08.01 12.36.02
Superior caval vein to pulmonary artery anastomosis, Atrioventricular valvar repair,	12.31.72 12.90.01
Superior caval vein to pulmonary artery anastomosis, Pulmonary arterioplasty reconstruction,	12.31.72 12.14.20
Total cavopulmonary conn (TCPC) with lateral atrial tunnel, Fontan-type connection without fenestration,	12.30.51 12.30.28
Total cavopulmonary conn (TCPC) using extracardiac SVC-PA conduit, Fontan-type connection without fenestration,	12.30.54 12.30.28
Fontan type procedure, Atrioventricular valvar repair,	12.30.01 12.90.01
Coronary arterial bypass graft (CABG) procedure, Aortic valve replacement,	12.23.08 12.16.21
Coronary arterial bypass graft (CABG) procedure, Aortic valve replacement, Mitral valve replacement,	12.23.08 12.16.21 12.03.11
Coronary arterial bypass graft (CABG) procedure, Aortic valve replacement, Mitral leaflet (valvoplasty) procedure,	12.23.08 12.16.21 12.03.03
Coronary arterial bypass graft (CABG) procedure, Mitral valve replacement,	12.23.08 12.03.11
Coronary arterial bypass graft (CABG) procedure, Mitral leaflet (valvoplasty) procedure,	12.23.08 12.03.03
Coarctation / hypoplasia of aorta repair, VSD closure,	12.18.00 12.08.01
Aortic arch repair, VSD closure,	12.18.30 12.08.01
Interrupted aortic arch repair, Aortopulmonary window closure,	12.21.00 12.12.01
Mustard procedure (atrial inversion), Pulmonary trunk band removal (de-band),	12.29.02 12.14.03
Mustard procedure (atrial inversion), VSD closure,	12.29.02 12.08.01
Pulmonary trunk band (PA band), Systemic-to-pulmonary arterial shunt procedure,	12.14.02 12.31.30
Rastelli procedure: LV to Ao via VSD & RV to pulm trunk conduit, VSD enlargement/ creation,	12.29.11 12.08.06
REV procedure: LV to Ao via VSD & direct RV-PA anast (Lecompte), VSD enlargement/ creation,	12.27.45 12.08.06

Congenitally corrected TGA, IVS

Congenitally corrected TGA, IVS-LVOTO

Congenitally corrected TGA, VSD

Congenitally corrected TGA, VSD-LVOTO

Interrupted aortic arch + VSD

Interrupted aortic arch + AP window (aortopulmonary window)

Truncus arteriosus + Interrupted aortic arch

TOF, Pulmonary stenosis
Problem with mapping as pulmonary stenosis always a part of TOF in definitions
so suspect coders will not know which to use.

VSD repair + ASD repair

VSD repair + PA debanding

Valve replacement, Mitral (MVR) + Valve replacement, Aortic (AVR)

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

TOF repair, No ventriculotomy

TOF repair, Ventriculotomy, Transannular patch

TOF repair, Ventriculotomy, Non-transannular patch

TOF repair, RV-PA conduit

Arterial switch operation (ASO) and VSD repair

Arterial switch procedure + Aortic arch repair

Arterial switch procedure and VSD repair + Aortic arch repair

Congenitally corrected TGA repair, VSD closure

Congenitally corrected TGA repair, VSD closure and LV to PA conduit

Superior cavopulmonary anastomosis(es) (Glenn or HemiFontan) +
Atrioventricular valvuloplasty

Superior Cavopulmonary anastomosis(es) + PA reconstruction

Fontan, TCPC, Lateral tunnel, Non-fenestrated

Fontan, TCPC, External conduit, Non-fenestrated

Fontan + Atrioventricular valvuloplasty

Coronary artery bypass + Valve replacement, Aortic (AVR)

Coronary artery bypass + Valve replacement, Aortic (AVR) + Valve replacement,
Mitral (MVR)

Coronary artery bypass + Valve replacement, Aortic (AVR) + Valvuloplasty, Mitral

Coronary artery bypass + Valve replacement, Mitral (MVR)

Coronary artery bypass + Valvuloplasty, Mitral

Coarctation repair + VSD repair

Aortic arch repair + VSD repair

Interrupted aortic arch repair + AP window repair

Mustard + PA debanding

Mustard + VSD repair

PA Banding (PAB) + Shunt, Systemic to pulmonary

Rastelli + VSD creation/enlargement

REV + VSD creation/enlargement

Senning procedure (atrial inversion), Pulmonary trunk band removal (de-band),	12.29.01 12.14.03
Senning procedure (atrial inversion), VSD closure,	12.29.01 12.08.01
Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery): stage 1, Application of right & left pulmonary arterial bands,	12.20.20 12.14.19
Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery): stage 1, Stent placement in arterial duct (PDA),	12.20.20 12.10.14

Senning + PA debanding

Senning + VSD repair

Hybrid Approach "Stage 1", Application of RPA & LPA bands

Hybrid Approach "Stage 1", Stent placement in arterial duct (PDA)