

## European Paediatric Cardiac Code Short List crossmapped to STS/EACTS Short List with ICD-9 & ICD-10 crossmapping

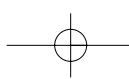
[Boxed items in Appendix are where two or more EPCC codes map to an STS/EACTS “combination” term]

Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
<b>Diagnostic congenital and generic cardiac codes</b>						
	Normal heart,	01.01.00	nc	nc		Normal heart
c1	Normal atrial arrangement (situs), AV & VA connections,	01.03.10	nc	nc		
	Usual atrial arrangement (atrial situs solitus),	01.03.00	nc	nc		
	Concordant VA connections,	01.05.00	nc	nc		
	Innocent murmur,	10.12.01	785.2	R01.0		
<b>Abnormalities of position and connection of heart</b>						
c1	Position-orientation of heart abnormal,	02.01.09	746.8	Q24.8		Cardiac, Other
	Dextrocardia: heart predominantly in R hemithorax,	02.01.02	746.8	Q24.0		Cardiac, Other
c1	Position or morphology of thoraco-abdominal organs abnormal,	03.01.09	759.9	Q89.9		Thoracic and/or mediastinal, Other
c1	Abnormal atrial arrangement,	01.03.06	746.9	Q20.9		Cardiac, Other
	Total mirror imagery (atrial situs inversus),	03.01.03	759.3	Q89.3		Thoracic and/or mediastinal, Other
	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
c1	AV and/or VA connections abnormal,	01.03.09	746.9	Q20.9		Cardiac, Other
c2	Double inlet ventricle,	01.01.14	745.3	Q20.4		Single ventricle
	Double inlet RV,	01.04.03	745.3	Q20.4		Single ventricle, DIRV
	Double inlet LV,	01.04.04	745.3	Q20.4		Single ventricle, DILV
	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
c2	Discordant VA connections (TGA),	01.05.01	745.1	Q20.3		TGA
	Complete transposition of great arteries (IVS),	01.01.02	745.1	Q20.3		TGA, IVS
	Congenitally corrected transposition of great arteries,	01.01.03	745.1	Q20.5		Congenitally corrected TGA
c2	Double outlet RV,	01.01.04	746.8	Q20.1		DORV
	Double outlet RV – Fallot type,	01.01.17	746.8	Q20.1		DORV, TOF type
	Double outlet RV – transposition type,	01.01.18	746.8	Q20.1		DORV, TGA type
	Double outlet RV – with non-committed VSD,	01.01.19	746.8	Q20.1		DORV, Remote VSD (Uncommitted VSD)
	Double outlet LV,	01.05.03	746.8	Q20.2		DOLV
c2	Common arterial trunk,	09.01.01	745.0	Q20.0		Truncus arteriosus
<b>Tetralogy of Fallot and variants</b>						
	Tetralogy of Fallot,	01.01.01	745.2	Q21.3		TOF
	Pulmonary atresia + VSD (including Fallot type),	01.01.06	745.2	Q21.3		Pulmonary atresia, VSD (including TOF, PA)
	Pulmonary atresia + VSD + “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 PAs),	09.07.26	745.2	Q25.7		Cardiac, Other
c1	Major systemic-to-pulmonary collateral artery (MAPCA),	09.08.01	747.9	Q27.8		MAPCA(s) (major aortopulmonary collateral[s]) (without PA-VSD)

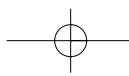
Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
<b>Abnormalities of great veins</b>						
c1 Superior caval vein (SVC) abnormality,	04.01.00	747.4		Q26.9		Systemic venous anomaly
Left SVC persisting to coronary sinus,	04.01.01	747.4		Q26.1		Systemic venous anomaly
c1 Inferior caval vein (IVC) abnormality,	04.03.00	747.4		Q26.9		Systemic venous anomaly
Azygous continuation of IVC,	04.03.10	747.4		Q26.8		Systemic venous anomaly
c1 Hepatic vein abnormality,	04.02.00	747.4		Q26.8		Systemic venous anomaly
c1 Systemic vein abnormality – congenital,	04.05.00	747.4		Q26.9		Systemic venous anomaly
c1 Pulmonary vein abnormality,	04.08.00	747.4		Q26.9		Cardiac, Other
c2 Pulmonary vein stenosis,	04.08.91	747.4		Q26.8		Pulmonary vein stenosis
c2 Totally anomalous pulmonary venous connection,	04.08.05	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC)
Totally anomalous pulmonary venous connection – supracardiac,	04.06.00	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC), Type 1 (supracardiac)
Totally anomalous pulmonary venous connection – intracardiac,	04.08.10	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC), Type 2 (cardiac)
Totally anomalous pulmonary venous connection – infracardiac,	04.08.20	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC), Type 3 (infracardiac)
Totally anomalous pulmonary venous connection – mixed,	04.08.30	747.4		Q26.2		Total anomalous pulmonary venous connection (TAPVC), Type 4 (mixed)
c2 Partially anomalous pulmonary venous connection(s),	04.07.01	747.4		Q26.3		Partial anomalous pulmonary venous connection (PAPVC)
Partially anomalous pulmonary venous connections: Scimitar syndrome,	01.01.16	747.4		Q26.8		Partial anomalous pulmonary venous connection (PAPVC), Scimitar
c1 Coronary sinus abnormality,	04.04.00	746.8		Q24.5		Cardiac, Other
<b>Abnormalities of atriums and atrial septum</b>						
c1 RA abnormality,	05.01.00	746.9		Q20.8		Cardiac, Other
c1 LA 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,	05.03.10	nc		nc		
c1 Atrial septum abnormality,	05.03.00	745.5		Q21.9		Cardiac, Other
Patent foramen ovale (PFO),	05.03.01	745.5		Q21.1		PFO
c2 ASD,	05.04.01	745.5		Q21.1		ASD
c3 ASD within oval fossa (secundum),	05.04.02	745.5		Q21.1		ASD, Secundum
Spontaneous closure of ASD within oval fossa (secundum),	05.04.03	nc		nc		
c3 Sinus venosus ASD,	05.05.00	745.5		Q21.1		ASD, sinus venosum
Common atrium (virtual absence of atrial septum),	05.06.01	745.6		Q21.2		ASD, Common atrium (single atrium)
Interatrial communication (ASD) through coronary sinus orifice,	05.05.03	745.5		Q21.1		ASD, Coronary sinus
<b>Abnormalities of AV valves and AV septal defect</b>						
c1 Tricuspid valvar abnormality,	06.01.00	746.9		Q22.9		Tricuspid valve, Other
c2 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

Collective term status	EPC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
	Tricuspid valvar dysplasia (mucoïd thickening),	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
c1	Tricuspid stenosis,	06.01.92	746.1		Q22.4	Tricuspid stenosis
c1	Mitral stenosis,	06.02.92	746.5		Q23.2	Mitral stenosis
c1	Mitral valvar abnormality,	06.02.00	746.9		Q23.9	Mitral valve, Other
c2	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		I34.1	Mitral valve, Other
	True cleft of mitral valve,	06.02.36	746.9		Q23.8	Mitral valve, Other
c1	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
c1	Mitral subvalvar apparatus abnormality,	06.02.12	746.9		Q23.8	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
c1	Atrioventricular septal defect,	06.06.00	745.6		Q21.2	AVC (AVSD)
	AVSD: isolated atrial component (primum ASD),	06.06.01	745.6		Q21.2	AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, Primum)
	AVSD: isolated ventricular component,	06.06.08	745.6		Q21.2	AVC (AVSD)
	AVSD: atrial & ventricular components (complete),	06.06.09	745.6		Q21.2	AVC (AVSD), Complete (CAVSD)
	AVSD: atrial & ventricular components + separate AV valves ("intermediate"),	06.06.10	745.6		Q21.2	AVC (AVSD), Intermediate (transitional)
	AVSD with ventricular imbalance,	06.07.26	745.6		Q21.2	Single ventricle, Unbalanced AV Canal
c1	AVSD AV valvar abnormality,	06.05.01	746.9		Q24.8	Cardiac, Other
c2	AVSD AV valvar regurgitation,	06.05.06	746.8		Q24.8	Cardiac, Other
	AV septal defect and Tetralogy of Fallot,	01.01.20	745.6	745.2	Q21.2	TOF, AVC (AVSD)
<b>Abnormalities of ventricles and ventricular septum</b>						
c1	Functionally univentricular heart,	01.01.22	746.9		Q20.9	Single ventricle
	Ventricular imbalance: dominant LV + hypoplastic RV,	07.08.41	746.8		Q20.8	Cardiac, Other
	Ventricular imbalance: dominant RV + hypoplastic LV,	07.08.42	746.8		Q20.8	Cardiac, Other
c1	RV abnormality,	07.01.00	746.9		Q24.9	Cardiac, Other
	RV aneurysm,	07.01.14	746.8		Q24.8	Aneurysm, Ventricular, Right
c2	RV hypoplasia,	07.02.00	746.9		Q20.8	Hypoplastic RV
c2	Double chambered RV,	07.03.01	746.8		Q24.8	DCRV
c1	RV outflow tract obstruction,	07.05.01	746.8		Q24.8	Cardiac, Other
c1	LV abnormality,	07.06.00	746.9		Q24.9	Cardiac, Other
c2	LV hypoplasia,	07.07.00	746.9		Q20.8	Hypoplastic LV
	LV aneurysm,	07.06.13	746.8		Q24.8	Aneurysm, Ventricular, Left
	Hypoplastic left heart syndrome,	01.01.09	746.7		Q23.4	Hypoplastic left heart syndrome (HLHS)
c1	LV outflow tract obstruction,	07.09.01	746.8		Q24.8	Cardiac, Other
	Intact ventricular septum,	07.21.00	nc		nc	
c1	VSD,	07.10.00	745.4		Q21.0	VSD
	Tiny VSD (Maladie de Roger),	07.15.01	745.4		Q21.0	VSD
	Single VSD,	07.15.05	745.4		Q21.0	VSD, Single
c2	Multiple VSDs,	07.15.04	745.4		Q21.0	VSD, Multiple
c2	Perimembranous VSD,	07.10.01	745.4		Q21.0	VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)
c2	VSD + malaligned outlet septum,	07.10.12	745.4		Q21.0	VSD

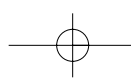
Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Inlet VSD,	07.14.05	745.4		Q21.0		VSD, Type 3 (Inlet), AV Canal type)
c2 Muscular VSD,	07.11.01	745.4		Q21.0		VSD, Type 4 (Muscular)
c1 Subarterial VSD,	07.12.00	745.4		Q21.0		VSD, Type 1 (Subarterial) (Supracristal) (Conal septal defect) (Infundibular)
c2 Doubly committed subarterial VSD,	07.12.01	745.4		Q21.0		VSD
Communication between LV-RA (Gerbode defect),	07.14.02	745.4		Q21.0		VSD, Type: Gerbode type (LV-RA communication)
c2 Spontaneous closure of VSD,	07.16.01	V13.6		Z87.7		
c1 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
<b>Abnormalities of VA valves and great arteries</b>						
c1 Aortopulmonary window,	09.04.01	745.0		Q21.4		AP window (aortopulmonary window)
c1 Pulmonary artery from ascending aorta (hemitruncus),	09.09.08	747.3		Q25.7		Pulmonary artery origin from ascending aorta
c1 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
c1 Pulmonary stenosis,	09.05.92	746.0		Q22.3		Pulmonary stenosis
c2 Subpulmonary stenosis,	07.05.30	746.8		Q24.3		Pulmonary stenosis, Subvalvar
c1 Pulmonary valvar abnormality,	09.05.00	746.0		Q22.3		Pulmonary valve, Other
c2 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
c2 Pulmonary regurgitation,	09.05.91	746.0		Q22.2		Pulmonary insufficiency
Pulmonary regurgitation – congenital,	09.05.22	746.0		Q22.2		Pulmonary insufficiency
c1 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, IVS
Coronary fistulas from RV (“sinusoidal”),	09.45.11	746.9		Q24.8		Cardiac, Other
RV dependent coronary circulation,	09.46.06	nc		nc		Cardiac, Other
c1 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)
c1 Pulmonary arterial abnormality,	09.10.00	747.3		Q25.7		Cardiac, Other
c2 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)
c2 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
c2 Pulmonary arterial aneurysm,	09.10.44	747.3		Q25.7		Aneurysm, Pulmonary artery
c1 Aortic stenosis,	09.15.92	746.3		Q23.0		Aortic stenosis,
c2 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
c1 Aortic valvar abnormality,	09.15.00	746.9		Q23.9		Aortic valve, Other
c2 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
c2 Aortic regurgitation,	09.15.91	746.4		Q23.1		Aortic insufficiency



Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
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
c2 Aortic valvar atresia,	09.15.03	746.7		Q23.0		Aortic valve atresia
c2 Aortic valvar prolapse,	09.15.30	746.9		Q23.8		Aortic valve, Other
c1 Ascending aorta abnormality,	09.16.10	747.2		Q25.3		Cardiac, Other
Ascending aorta hypoplasia,	09.16.02	747.2		Q25.4		Cardiac, Other
c2 Supravalvar aortic stenosis,	09.16.00	747.2		Q25.3		Aortic stenosis, Supravalvar
c2 Ascending aorta dilation,	09.16.09	747.2		Q25.4		Cardiac, Other
Ascending aorta dilation associated with Marfan syndrome,	09.16.05	441.6	759.8	Q87.4†	I79.0*	Cardiac, Other
c1 Aortic sinus of Valsalva aneurysm,	09.18.01	747.2		Q25.4		Sinus of Valsalva aneurysm
c1 Aorto-LV tunnel,	09.17.02	747.2		Q25.4		LV to aorta tunnel
c1 Aortic arch abnormality,	09.28.00	747.2		Q25.4		Cardiac, Other
Right aortic arch,	09.28.15	747.2		Q25.4		Cardiac, Other
c2 Aortic coarctation,	09.29.01	747.1		Q25.1		Coarctation of aorta
c2 Aortic arch hypoplasia (tubular),	09.29.11	747.2		Q25.4		Aortic arch hypoplasia
c2 Interrupted aortic arch,	09.29.31	747.1		Q25.4		Interrupted aortic arch
c2 Aortic arch branch abnormality,	09.30.00	747.6		Q27.8		Cardiac, Other
Aberrant origin R subclavian artery,	09.30.02	747.6		Q27.8		Cardiac, Other
c1 Vascular ring,	09.31.00	747.2		Q25.4		Vascular ring
c2 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
<b>Abnormalities of coronary arteries, arterial duct and pericardium; AV fistulae</b>						
c1 Coronary arterial abnormality,	09.46.00	746.8		Q24.5		Coronary artery anomaly
c2 Anomalous origin of coronary artery from pulmonary artery,	09.41.01	746.8		Q24.5		Coronary artery anomaly, Anomalous pulmonary origin (includes ALCAPA)
c2 Coronary fistula,	09.45.01	746.8		Q24.5		Coronary artery anomaly, Fistula
c2 Coronary artery: anomalous aortic origin/course,  Coronary arterial aneurysm(s),	09.42.00	746.8		Q24.5		Coronary artery anomaly, Anomalous aortic origin
	09.46.01	746.8		Q24.5		Coronary artery anomaly, Aneurysm
c1 Arterial duct (ductus arteriosus) abnormality,	09.27.00	747.8		Q25.8		Cardiac, Other
c2 Patent arterial duct (PDA),	09.27.21	747.0		Q25.0		Patent ductus arteriosus
c1 Arteriovenous fistula,	09.19.01	747.6		Q27.3		
Pulmonary arteriovenous fistula,	09.19.05	747.3		Q25.7		Pulmonary AV fistula
c1 Distal systemic arterial abnormality,	09.20.20	747.9		Q27.8		Peripheral vasculature, Other
c1 Pericardial abnormality,	10.01.00	746.8		Q24.8		Pericardial disease, Other
Cardiac abnormality (DESCRIBE),	01.01.39	746.8		Q24.8		Cardiac, Other
<b>Diagnostic hereditary, fetal, neonatal and non-cardiac codes</b>						
Multiple congenital malformations,	14.06.01	759.7		Q89.7		
Family history of congenital heart lesion,	10.23.01	V19.5		Z82.7		
Family history of disorder with cardiac involvement,	10.23.03	V19.5		Z82.7		
c1 Maternal teratogen associated with congenital heart disease,	14.05.01	760.7		Q86.8		
Maternal SLE,	10.23.02	655.4		P00.8		
<b>Neonatal and fetal disorders or abnormalities</b>						
c1 Neonatal disorder,	10.15.00	779.9		P96.9		
Infant of diabetic mother,	10.22.03	775.0		P70.1		
Heart muscle disease in infant of diabetic mother,	10.07.71	775.0†	425.8*	P70.1†	I43.8*	Cardiac, Other
Premature birth,	10.22.02	765.1		P07.3		
Meconium aspiration,	10.15.12	770.1		P24.0		Meconium aspiration
Necrotising enterocolitis,	10.15.05	777.5		P77		
Transient myocardial ischaemia,	10.15.10	779.8		P29.4		



Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Persistent pulmonary hypertension of the newborn (PFC),	10.15.01	747.9		P29.3		Persistent fetal circulation
c1 Fetal abnormality,	14.10.01	655.9		O35.9		
c2 Increased nuchal thickness,	14.10.12	655.9		O28.3		
c2 Fetal hydrops,	14.10.02	778.0		36.2		
Twin-to-twin transfusion syndrome,	14.10.11	762.3		P02.3		
Fetal arrhythmia,	14.10.06	768.2		O35.8		Arrhythmia
c2 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 abnormal venous Doppler flow,	14.10.26	655.9		O28.3		
Fetal unexplained R heart dominance,	14.10.07	655.9		O28.3		
Fetal unexplained L heart dominance,	14.10.45	655.9		O28.3		
<b>Chromosomal anomalies and other syndromes</b>						
c1 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 – CATCH 22,	14.01.21	758.3		Q93.8		22q11 deletion
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
c1 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		E74.0		Other chromosomal/ syndromic abnormality
Friedreich's ataxia,	14.02.10	334.0		G11.1		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
DiGeorge sequence,	14.02.06	279.1		D82.1		DiGeorge
Williams syndrome (infantile hypercalcaemia),	14.02.30	275.4	747.2	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
c1 Syndrome/association with cardiac involvement,	14.02.00	759.9		Q87.8		Other chromosomal/ syndromic abnormality
c1 Dyslipidaemia,	10.19.01	272.4		E78.9		
<b>Non-cardiac anomalies associated with heart anomalies</b>						
Hereditary/non-cardiac abnormality not apparent,	10.23.00	nc		nc		None
c1 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
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



Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
c1 Renal abnormality,	14.03.23	753.9		Q64.9		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
Cleft lip/palate,	14.04.12	749.2		Q37		Other preoperative noncardiac abnormality
Kyphoscoliosis,	14.04.09	756.1		Q67.5		Other preoperative noncardiac abnormality
c1 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
c1 Non-cardiothoracic/vascular abnormality (DESCRIBE),	14.03.04	759.8		Q89.8		Miscellaneous, Other
c1 Thoracic/mediastinal abnormality,	14.03.29	759.8		Q89.8		Thoracic and/or mediastinal, Other

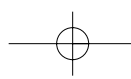
## Diagnostic codes for acquired and post-procedural abnormalities or disorders

### Rheumatic and infective heart disease

c1 Acute rheumatic fever,	10.05.01	390		I00		
Rheumatic fever with cardiac involvement,	10.05.21	391		I01		Cardiac, Other
c1 Rheumatic valvar disease,	10.05.30	397.9		I09.1		Cardiac, Other
c2 Rheumatic mitral valvar disease,	10.05.31	394.9		I05.9		Mitral valve, Other
c2 Rheumatic aortic valvar disease,	10.05.33	395.9		I06.9		Aortic valve, Other
c1 Infective endocarditis,	10.06.01	421.0		I33.0		Endocarditis
c2 Bacterial endocarditis,	10.06.41	421.0		I33.0		Endocarditis
Post-procedural endocarditis,	10.06.64	421.0	E878.8	I33.0	Y83.8	Postoperative endocarditis
c1 Heart abscess,	10.06.20	429.8		I51.8		Cardiac, Other
c1 Infectious myocarditis,	10.07.01	422.9		I40.0		Cardiac, Other
c2 Viral myocarditis,	10.07.03	422.9	79.9	I40.0	B97	Cardiac, Other
Trypanosomal myocarditis (Chagas' disease),	10.07.08	86.0†	425.6*	B57.2†	I41.2*	Cardiac, Other
c1 Infectious pericarditis,	10.08.01	420.9		I30.1		Pericarditis
Viral pericarditis,	10.08.03	420.9	79.9	I30.1	B97	Pericarditis
c2 Bacterial pericarditis,	10.08.04	420.9	41.9	I30.1	B96.8	Pericarditis

### Great vein and atrial acquired abnormalities

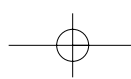
c1 Systemic vein abnormality – acquired,	10.30.00	459.9		I87.9		Cardiac, Other
c2 Systemic vein obstruction,	10.30.09	459.2		I87.1	Y83.8	Systemic vein obstruction
c1 SVC abnormality – acquired,	10.31.01	459.9		I87.9		Cardiac, Other
c2 Post-procedural SVC complication,	15.04.01	459.9	E878.8	I87.9	Y83.8	Cardiac, Other
c1 IVC abnormality – acquired,	10.31.21	459.9		I87.9		Cardiac, Other
c2 Post-procedural IVC complication,	15.04.05	459.9	E878.8	I87.9	Y83.8	Cardiac, Other
c1 Pulmonary venous abnormality – acquired,	10.24.00	459.9		I28.9		Cardiac, Other
c2 Post-procedural pulmonary vein complication,	15.05.01	459.9	E878.8	I28.9	Y83.8	Cardiac, Other
c2 Pulmonary vein obstruction,	15.05.03	459.2	E878.8	I28.8	Y83.8	Pulmonary vein obstruction
c1 Post-procedural major vein complication,	15.04.34	459.9	E878.8	I87.9	Y83.8	Peripheral vascular, Other
c2 Post-procedural femoral vein complication,	15.04.15	459.9	E878.8	I87.9	Y83.8	Peripheral vascular, Other
c1 RA abnormality – acquired,	15.10.10	429.8		I51.8		Cardiac, Other
c2 Post-procedural RA complication,	15.10.11	997.1	E878.8	I97.8		Cardiac, Other
Obstruction of RA conduit (TCPC),	15.10.13	996.7		T82.8		Conduit failure
c1 LA abnormality – acquired,	15.10.20	429.8		I51.8		Cardiac, Other
c2 Post-procedural LA complication,	15.10.21	997.1	E878.8	I97.8		Cardiac, Other
c1 Atrial septum abnormality – acquired,	10.17.40	429.8		I51.8		Cardiac, Other
c2 Post-procedural atrial septum complication,	15.10.61	997.1		I97.8		Cardiac, Other
Residual ASD,	15.10.63	745.5	E878.8	Q21.1	Y83.8	ASD
Ineffective balloon atrial septostomy,	15.10.66	429.4	E878.8	I97.8	Y83.8	



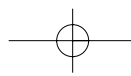


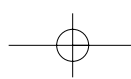
Collective term status	EPC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
<b>Acquired valvar and AV septal defect abnormalities</b>						
c1 Heart valvar abnormality – acquired,	10.32.00	424.9		I38		Cardiac, Other
Prosthetic valve failure,	10.33.00	996		T82.0		Prosthetic valve failure
c1 Tricuspid valvar abnormality – acquired,	10.32.01	424.2		I36.9		Tricuspid valve, Other
c2 Post-procedural tricuspid valvar complication,	15.11.00	424.2	E878.8	I36.9	Y83.8	Tricuspid valve, Other
Residual tricuspid regurgitation,	15.11.03	746.8	E878.8	Q22.8	Y83.8	Tricuspid regurgitation, non-Ebstein's related
c2 Tricuspid valvar prosthesis complication,	15.11.08	996.0		T82.0		Tricuspid valve, Other
c1 Mitral valvar abnormality – acquired,	10.33.01	424.0		I34.9		Mitral valve, Other
c2 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
c2 Mitral regurgitation – acquired,	10.33.04	424.0		I34.0		Mitral regurgitation
Mitral regurgitation – recurrent,	10.33.06	424.0		I34.0		Mitral regurgitation
c2 Post-procedural mitral valvar complication,	15.12.00	394.9	E878.8	I34.9	Y83.8	Mitral valve, Other
Residual mitral valvar stenosis,	15.12.01	746.5	E878.8	Q23.2	Y83.8	Mitral stenosis, Valvar
Residual mitral regurgitation,	15.12.03	746.6	E878.8	Q23.3	Y83.8	Mitral regurgitation
c2 Mitral valvar prosthesis complication,	15.12.09	996.0		T82.0		Mitral valve, Other
c1 Truncal valvar abnormality – acquired,	10.37.01	424.9		I38		Cardiac, Other
c2 Residual truncal regurgitation,	15.25.03	746.9	E878.8	Q24.8	Y83.8	Truncal valve insufficiency
c1 Common arterial trunk abnormality – acquired,	10.51.01	447.8		I77.8		Cardiac, Other
c1 Pulmonary valvar abnormality – acquired,	10.35.01	424.3		I37.9		Pulmonary valve, Other
c2 Pulmonary valvar stenosis – acquired,	10.35.02	424.3		I37.0		Pulmonary stenosis, Valvar
Pulmonary valvar 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 valvar atresia – acquired,	09.05.15	424.3		I37.8		Pulmonary atresia
c2 Post-procedural pulmonary valvar complication,	15.30.00	424.3	E878.8	I37.9	Y83.8	Pulmonary valve, Other
Residual pulmonary valvar 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
c2 Pulmonary valvar prosthesis complication,	15.30.08	996.0		T82.0		Pulmonary valve, Other
c1 Aortic valvar abnormality – acquired,	10.36.01	424.1		I35.9		Aortic valve, Other
c2 Aortic valvar stenosis – acquired,	10.36.02	424.1		I35.0		Aortic stenosis, Valvar
Aortic valvar 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
c2 Post-procedural aortic valvar complication,	15.35.00	424.1	E878.8	I35.9	Y83.8	Aortic valve, Other
Residual aortic valvar 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
c2 Aortic valvar prosthesis complication,	15.35.08	996.0		T82.0		Aortic valve, Other
c1 Post-procedural AV septal defect complication,	15.16.00	429.8	E878.8	Q21.2	Y83.8	Cardiac, Other
Residual ventricular component of AV septal defect,	15.16.02	745.6	E878.8	Q21.2	Y83.8	VSD
c1 AV valvar abnormality in AVSD – acquired,	10.34.60	424.9		I38		Cardiac, Other
Residual common AV valvar regurgitation,	15.13.02	746.9	E878.8	Q24.8	Y83.8	Cardiac, Other
c2 Post-procedural right AV valvar complication,	15.14.00	424.2	E878.8	I36.9	Y83.8	Cardiac, Other
c2 Post-procedural left AV valvar complication,	15.15.00	394.9	E878.8	I34.9	Y83.8	Cardiac, Other
Acquired left AV valvar regurgitation,	10.34.44	424.0		I34.0		Mitral regurgitation
<b>Acquired ventricular and ventricular septal abnormalities</b>						
c1 RV abnormality – acquired,	10.16.00	429.8		I51.8		Cardiac, Other
c2 Post-procedural RV complication,	15.20.01	997.1		I97.8		Cardiac, Other
c2 RV dysfunction,	07.01.11	429.8		I51.8		Cardiac, Other
Right ventricular/congestive heart failure,	10.16.08	428.0		I50.0		Cardiac, Other
c1 Post-procedural RV outflow tract complication,	15.20.21	429.8	E878.8	I51.8	Y83.8	Cardiac, Other
Aneurysm of RV outflow tract patch,	15.20.25	996.7		T82.8		Aneurysm, Ventricular, Right
Residual RV outflow tract obstruction,	15.20.23	746.8	E878.8	Q24.8	Y83.8	Pulmonary stenosis
c1 LV abnormality – acquired,	10.16.40	429.8		I51.8		Cardiac, Other
c2 Post-procedural LV complication,	15.21.01	997.1		I97.8		Cardiac, Other
c2 LV dysfunction,	07.06.10	429.8		I51.8		Cardiac, Other



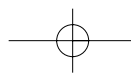


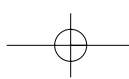
Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Left ventricular failure,	10.16.47	428.1		I50.1		Cardiac, Other
c1 Post-procedural LV outflow tract complication,	15.21.21	429.8	E878.8	I51.8	Y83.8	Cardiac, Other
Recurrent LV outflow tract obstruction,	10.16.46	429.8		I51.8		Cardiac, Other
c1 Narrowing of constructed intracardiac tunnel – acquired,	10.16.81	996.7		T82.8		Cardiac, Other
c1 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
c1 Subpulmonary stenosis in complex heart disease – acquired,	10.16.83	429.8		I51.8		Pulmonary stenosis
Residual subpulmonary stenosis in complex heart disease,	15.20.76	429.8	E878.8	I51.8	Y83.8	Pulmonary stenosis
c1 Abnormality associated with VSD – acquired,	10.16.60	429.8		I51.0		Cardiac, Other
Post-myocardial infarct VSD,	10.16.62	410		I23.2		VSD
Residual VSD,	15.22.02	745.4	E878.8	Q21.0	Y83.8	VSD
<b>Cardiomyopathy and heart muscle diseases</b>						
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
c1 Cardiomyopathy,	10.10.01	425.4		I42.9		Cardiomyopathy
c2 Hypertrophic cardiomyopathy,	10.10.20	425.4		I42.2		Cardiomyopathy
c2 Dilated cardiomyopathy,	10.10.25	425.4		I42.0		Cardiomyopathy
Arrhythmogenic RV cardiomyopathy,	07.01.10	425.4		I42.8		Cardiomyopathy
c2 Endocardial fibroelastosis,	10.10.12	425.3		I42.4		Cardiomyopathy
Idiopathic restrictive cardiomyopathy,	10.10.11	425.4		I42.5		Cardiomyopathy
c2 Infiltrative cardiomyopathy,	10.10.13	425.4		I42.8		Cardiomyopathy
c1 Drug induced heart muscle disease,	10.07.05	425.9		I42.7		Cardiac, Other
c1 Nutritional heart muscle disease,	10.07.61	269.9†	425.7*	E63.9†	I43.2*	Cardiac, Other
c1 Heart muscle disease in collagen vascular disorder,	10.07.81	710.9†	425.8*	M35.9†	I43.8*	Cardiac, Other
<b>Acquired pulmonary arterial abnormalities</b>						
c1 Pulmonary arterial abnormality – acquired,	10.13.50	417.9		I28.9		Cardiac, Other
c2 Post-procedural pulmonary trunk complication,	15.32.01	417.8	E878.8	I28.8	Y83.8	Cardiac, Other
c2 Post-procedural RPA complication,	15.32.21	417.8	E878.8	I28.8	Y83.8	Cardiac, Other
c2 Post-procedural LPA complication,	15.32.41	417.8	E878.8	I28.8	Y83.8	Cardiac, Other
Residual RPA stenosis,	15.32.23	747.3	E878.8	Q25.6	Y83.8	Pulm art stenosis, Branch, Central
Residual LPA stenosis,	15.32.43	747.3	E878.8	Q25.6	Y83.8	Pulm art stenosis, Branch, Central
c1 Pulmonary arterial hypertension,	10.13.01	416.8		I27.0		
c2 Primary pulmonary hypertension,	10.13.02	416.0		I27.0		Primary pulmonary hypertension
c2 Secondary pulmonary hypertension,	10.13.20	416.8		I27.8		
Pulmonary hypertension due to L to R shunt,	10.13.21	416.8		I27.8		
c1 Pulmonary vascular disease,	10.13.06	416.8		I27.8		Pulmonary vascular obstructive disease (Eisenmenger)
Irreversible pulmonary vascular disease (Eisenmenger),	10.13.08	416.8		I27.8		Pulmonary vascular obstructive disease (Eisenmenger)
c1 Pulmonary embolism,	10.13.51	415.1		I26.9		Pulmonary embolism
<b>Acquired systemic arterial, coronary and ductal abnormalities</b>						
c1 Abnormality of aorta – acquired,	10.14.70	447.8		I77.8		Cardiac, Other
c2 Post-procedural ascending aorta complication,	15.36.01	447.8	E878.8	I77.8	Y83.8	Cardiac, Other
c2 Post-procedural descending aorta complication,	15.37.01	447.8	E878.8	I77.8	Y83.8	Cardiac, Other
c2 Residual aortic coarctation,	15.37.05	747.1	E878.8	Q25.1	Y83.8	Coarctation of aorta
c2 Post-procedural aneurysm of aorta at coarctation site,	15.37.07	441.2	E878.8	I71.2	Y83.8	Aneurysm, Other
Recoarctation of aorta,	10.14.72	447.1		I77.1		Coarctation of aorta
c2 Ascending aorta dilation – acquired,	10.14.40	441.6		I71.9		Cardiac, Other
c2 Aortic dissection,	10.14.51	441.0		I71.0		Aortic dissection
Ascending aorta dissection & propagation beyond arch (Type I),	10.14.52	441.0		I71.0		Aortic dissection
Ascending aorta dissection not beyond arch (Type II),	10.14.53	441.0		I71.0		Aortic dissection





Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
	10.14.54	441.0		I71.0		Aortic dissection
c2 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
c1 Systemic arteritis,	10.14.60	447.6		I77.6		
c1 Kawasaki disease,	10.09.01	446.1		M30.3		
Kawasaki disease without cardiac involvement,	10.09.08	446.1		M30.3		
Kawasaki disease with aneurysm or dilation coronary vessels,	10.09.02	446.1	414.1	M30.3	I25.4	Coronary artery anomaly, Aneurysm
c1 Acquired coronary arterial disease,	10.09.10	414.9		I25.9		Coronary artery anomaly, Other
c2 Ischaemic heart disease,	10.09.30	414.9		I25.9		Coronary artery anomaly, Other
c2 Myocardial infarction,	10.18.00	410		I21.9		Myocardial infarction
c3 Acute myocardial infarction,	10.18.01	410		I21.9		Myocardial infarction
c2 Post-procedural coronary arterial complication,	15.41.00	447.8	E878.8	I77.8	Y83.8	Coronary artery anomaly, Other
c1 Systemic hypertension,	10.14.01	401.9		I10		
Primary (essential) systemic hypertension,	10.14.02	401.9		I10		
c2 Secondary systemic hypertension,	10.14.00	405.9		I15.9		
Systemic hypertension due to aortic arch obstruction,	10.14.04	405.9		I15.8		
c1 Acquired arterial duct (ductus arteriosus) abnormality,	10.14.80	447.8		I77.8		Cardiac, Other
c2 Post-procedural arterial duct complication,	15.39.01	447.8	E878.8	I77.8	Y83.8	Cardiac, Other
Residual arterial duct (PDA) patency,	15.39.02	747.0	E878.8	Q25.0	Y83.8	Patent ductus arteriosus
c1 Post-procedural systemic-to-pulmonary collateral artery complication,	15.39.50	447.8	E878.8	I77.8	Y83.8	Cardiac, Other
<b>Acquired cardiac conduit/shunt, pericardial and post-transplant abnormalities</b>						
c1 Cardiac conduit complication,	15.55.00	996.7		T82.9		Conduit failure
c2 Cardiac conduit failure,	15.55.16	996.0		T82.5		Conduit failure
c1 Systemic-pulm arterial shunt complication,	15.56.00	996.7		T82.9		
c2 Systemic to PA shunt partial obstruction,	15.56.01	996.0		T82.5		
Systemic to PA shunt complete obstruction,	15.56.02	996.0		T82.5		
c1 Pericardial abnormality – acquired,	10.08.29	423.9		I31.9		Pericardial disease, Other
c2 Pericarditis,	10.08.00	420.9		I30.9		Pericarditis
Constrictive pericarditis,	10.08.09	423.2		I31.1		Pericardial disease, Other
c2 Pericardial effusion,	10.08.31	423.9		I31.3		Pericardial effusion
c1 Heart tumour,	10.03.01	239.8		D48.7		Cardiac tumor
c1 Traumatic injury of heart,	10.90.01	861.0		S26		Cardiac, Other
c1 Complication after heart or lung transplant,	15.95.00	996.8	E878.0	I97.9	Y83.0	Cardiac, Other
c2 Heart muscle disease in cardiac rejection,	10.07.42	996.8		T86.2		Cardiac, Other
Cardiac transplant associated coronary arteriosclerosis,	15.41.13	414.0	996.8	I25.1	T86.2	Coronary artery anomaly, Other
Lung disease in lung transplant rejection,	15.95.66	996.8		T86.3		
Post-lung transplant obliterative bronchiolitis,	15.95.64	491.8	996.8	J44.8	T86.3	
<b>Diagnostic codes for rhythm and conduction disturbances</b>						
c1 ECG abnormality,	11.20.00	794.3		R94.3		Arrhythmia
c1 Arrhythmia,	11.00.00	427.9		I49.9		Arrhythmia
c1 Cardiac arrest,	11.00.21	427.5		I46.9		Arrhythmia

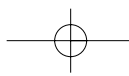




Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Sinus bradycardia,	11.02.04	427.8		I49.8		Arrhythmia
Sinus tachycardia,	11.02.07	427.8		I47.1		Arrhythmia
c1 Supraventricular rhythm disturbance,	11.01.01	427.0		I49.8		Arrhythmia, atrial
c2 Supraventricular tachycardia,	11.01.00	427.0		I47.1		Arrhythmia, atrial
Ectopic (automatic) atrial tachycardia,	11.03.12	427.8		I47.1		Arrhythmia, atrial
c2 Sinus node dysfunction (sick sinus),	11.02.03	427.8		I49.5		Arrhythmia, atrial
c2 Premature atrial complexes,	11.03.21	427.6		I49.1		Arrhythmia, atrial
Atrial flutter,	11.03.07	427.3		I48		Arrhythmia, atrial
Atrial fibrillation,	11.03.08	427.3		I48		Arrhythmia, atrial
Paroxysmal atrial tachycardia,	11.03.05	427.0		I47.1		Arrhythmia, atrial
c1 Rhythm disturbance at level of AV junction,	11.04.00	427.8		I49.8		Arrhythmia, atrial
AV junctional (nodal) tachycardia,	11.04.07	427.0		I47.1		Arrhythmia, atrial
AV nodal re-entry tachycardia,	11.04.11	427.0		I47.1		Arrhythmia, atrial
His bundle (junctional ectopic) tachycardia – post op,	11.04.12	997.1		I97.1		Arrhythmia, atrial
c1 Accessory pathway,	11.07.11	426.7		I45.6		Arrhythmia, atrial
WPW,	11.07.01	426.7		I45.6		Arrhythmia, atrial
Accessory pathway: retrograde conduction only (concealed),	11.07.06	426.7		I45.8		Arrhythmia, atrial
Orthodromic AV re-entry tachycardia,	11.07.22	426.7		I45.6		Arrhythmia, atrial
Antidromic AV re-entry tachycardia,	11.07.23	426.7		I45.6		Arrhythmia, atrial
Permanent junctional reciprocating tachycardia (PJRT),	11.07.14	427.8		I47.1		Arrhythmia, atrial
c1 Ventricular rhythm disturbance,	11.05.00	427.8		I49.8		Arrhythmia, ventricular
c2 Ventricular tachycardia,	11.05.06	427.1		I47.2		Arrhythmia, ventricular
Non-sustained ventricular tachycardia,	11.05.50	427.1		I47.2		Arrhythmia, ventricular
Ventricular flutter,	11.05.09	427.4		I49.0		Arrhythmia, ventricular
Ventricular fibrillation,	11.05.10	427.4		I49.0		Arrhythmia, ventricular
c2 Premature ventricular complexes,	11.05.21	427.6		I49.3		Arrhythmia, ventricular
c1 Conduction disturbance,	11.06.00	426.9		I45.9		Arrhythmia, Heart block
Sinoatrial block,	11.06.01	426.6		I45.5		Arrhythmia, atrial
1st degree AV block,	11.06.02	426.1		I44.0		Arrhythmia, atrial
c2 2nd degree AV block,	11.06.03	426.1		I44.1		Arrhythmia, atrial
c2 Complete AV block,	11.06.07	426.0		I44.2		Arrhythmia, Heart block
Congenital complete heart block,	11.06.16	746.8		Q24.6		Arrhythmia, Heart block, Congenital
Acquired complete AV block,	11.06.10	426.0		I44.2		Arrhythmia, Heart block, Acquired
Complete R bundle branch block,	11.06.23	426.4		I45.1		Arrhythmia
Complete L bundle branch block,	11.06.24	426.3		I44.7		Arrhythmia
c1 Long QT interval,	11.12.01	426.9		I45.8		Arrhythmia
c1 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 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
c1 Pacemaker lead dysfunction/complication,	11.11.40	996.0		T82.1		
c1 Pacemaker generator site local complication,	11.11.59	996.0		T82.9		
c1 AICD dysfunction/complication,	11.11.60	996.0		T82.1		

### Diagnostic codes for lung and thoracic disease

Tracheal stenosis,	16.10.01	519.1		J39.8		Tracheal stenosis
Tracheal disease,	16.10.09	519.1		J39.8		Tracheal disease, Other
c1 Empyema,	16.01.11	510.9		J86		Empyema
Lung disease – benign,	16.03.01	212.3		D14.3		Lung disease, Benign
Lung disease – malignant,	16.03.21	162.9		C34.9		Lung disease, Malignant
Lower respiratory tract infection,	16.03.02	518.9		J98.8		Pneumonia
Respiratory failure,	16.30.01	518.8		J96.9		Thoracic and/or mediastinal, Other
Pneumothorax,	16.01.01	512		J93.9		Pneumothorax



Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Pleural effusion,	16.01.04	511.9		J90		Pleural effusion
Chylothorax,	16.01.07	457.8		J94.0		Chylothorax
Empyema,	16.01.11	510.9		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 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 – benign,	16.05.11	212.5		D15.2		Mediastinal disease, Benign
Mediastinal disease – malignant,	16.05.12	164.9		C38.3		Mediastinal disease, Malignant
Diaphragm disease,	16.15.09	519.4		J98.6		Diaphragm disease, Other

### Diagnostic codes for symptoms and signs

c1 Symptom/sign of heart disease,	10.17.00	785.9		R09.8	
c2 Syncope,	10.40.01	780.2		R55	
Cyanosis,	10.17.03	782.5		R23.0	
Heart failure,	10.17.05	428.9		I50.9	
Cyanotic spells,	10.17.12	785.9		R09.8	
Palpitations,	10.17.13	785.1		R00.2	
Chest pain,	10.12.42	786.5		R07.4	
Failure to thrive,	10.12.39	783.4		R62.8	
c2 Hypotension,	10.40.30	458.9		I95.9	
Cardiac symptom without pathology (DESCRIBE),	10.17.09	785.9		R09.8	

### Diagnostic codes for Preoperative Risk Factors

No pre-procedural risk factors,	10.20.00	nc		nc		None
c1 Pre-procedural risk factor,	10.20.19	nc		nc		Other preoperative risk factor
Pre-procedural arrhythmia,	10.20.03	427.9		I49.9		Preoperative arrhythmia
Pre-procedural complete AV block,	11.06.35	426.0		I44.2		Preoperative complete AV block
Pre-procedural shock,	10.20.02	785.5		R57.0		Preoperative shock
Pre-procedural acidosis,	10.20.05	276.9		E87.8		Preoperative acidosis
Pre-procedural pulmonary hypertension,	10.20.16	518.5		J95.8		Preoperative pulmonary hypertension crises (PA pressure > systemic pressure)
Pre-procedural mechanical ventilatory support,	10.20.14	V46.1		Z99.1		Preoperative mechanical ventilatory support
Pre-procedural tracheostomy,	10.20.17	V44.0		Z93.0		Preoperative tracheostomy
c1 Pre-procedural renal failure,	10.20.07	584.9		N17.9		Preoperative renal failure (creatinine > 2)
Pre-procedural renal failure requiring dialysis,	10.20.08	V45.1		Z99.2		Preoperative renal failure requiring dialysis
Pre-procedural coagulation disorder,	10.20.06	286.9		D68.9		Preoperative bleeding disorder
Pre-procedural mechanical circulatory support,	10.20.15	V46.8		Z99.8		Preoperative mechanical circulatory support (IABP, VAD, ECMO, or CPS)
Pre-procedural septicaemia,	10.20.09	038.9		A41.9		Preoperative septicemia
Pre-procedural endocarditis,	10.06.65	421.0		I33.0		Preoperative endocarditis
Pre-procedural neurological impairment,	10.20.12	348.9		G93.9		Preoperative neurological deficit
Pre-procedural seizures,	10.20.18	345.9		R56.8		Preoperative seizures

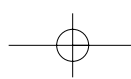
### Codes for diagnostic procedures

Clinical evaluation of patient,	13.00.01				
c1 ECG,	13.00.10				
24 hour ECG recording,	13.00.11				

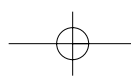
Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Exercise stress test,	13.00.13					
Chest x-ray,	13.00.21					
c1 Echocardiographic examination,	13.01.00					
Fetal echocardiographic examination,	13.01.01					
Transthoracic echocardiographic examination,	13.01.02					
Transoesophageal echocardiographic examination,	13.01.03					
CT scan of chest,	13.00.23					
MRI of heart,	13.00.24					
Myocardial perfusion scan,	13.00.31					
Exploratory procedure to assess heart,	12.32.03					
Post mortem examination of heart and lungs,	13.00.71					
c1 <b>Diagnostic catheterisation procedure,</b>	13.05.01					
<b>Diagnostic qualifier codes</b>						
– status: post-procedure,	Q1.90.51					
– diagnosis uncertain,	Q1.90.67					
<b>Codes for operations and interventions</b>						
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
Thoracoscopic approach (VATS),	12.40.06					VATS (video assisted thoracoscopic surgery)
Minimally invasive procedure,	12.40.13					Minimally invasive procedure
Transatrial approach,	12.08.11					
Trans-RV approach,	12.08.12					
<b>Great vein procedures</b>						
c1 Pulmonary vein procedure,	12.00.20					Cardiac procedure, Other
c1 TAPVC repair,	12.00.00					TAPVC repair
c1 Partially APVC repair,	12.00.02					PAPVC repair
Scimitar syndrome (PAPVC) repair,	12.00.17					PAPVC, Scimitar, Repair
Pulmonary vein stenosis repair,	12.00.03					Pulmonary venous stenosis repair
c1 Pulmonary venous pathway procedure (post Senning/Mustard),	12.29.52					Cardiac procedure, Other
c1 Systemic vein procedure,	12.00.30					Cardiac procedure, Other
c2 Anomalous systemic venous connection repair,	12.00.81					Anomalous systemic venous connection repair
Systemic venous stenosis repair,	12.00.83					Systemic venous stenosis repair
c1 Systemic venous pathway procedure (post Senning/Mustard),	12.00.29					Cardiac procedure, Other
c1 Coronary sinus procedure,	12.00.50					Cardiac procedure, Other
<b>Atrial Procedures</b>						
c1 Right atrial procedure,	12.01.60					Cardiac procedure, Other
c1 Left atrial procedure,	12.01.30					Cardiac procedure, Other
Cor triatriatum (divided LA) repair,	12.01.31					Cor triatriatum repair
Patent foramen ovale (PFO) direct closure,	12.01.53					PFO, primary closure
c1 ASD closure,	12.01.01					ASD repair
ASD closure with direct suture,	12.01.02					ASD repair, Primary closure
ASD closure with patch,	12.01.03					ASD repair, Patch
c2 Sinus venosus ASD closure,	12.01.10					ASD repair
ASD closure – partial,	12.01.08					ASD partial closure
Coronary sinus ASD repair,	12.00.55					ASD repair
c1 Interatrial communication creation/enlargement,	12.01.90					ASD creation/enlargement
Atrial septectomy – closed (Blalock Hanlon),	12.01.42					ASD creation/enlargement

Collective term status	EPC code	ICD-9 ICD-9 additional	ICD-10 ICD-10 additional	STS/EACTS equivalent
Atrial septectomy,	12.01.43			ASD creation/enlargement
c2 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			
<b>AV valvar &amp; AV septal defect procedures</b>				
c1 Tricuspid valvar procedure,	12.02.00			Valve surgery, Other, Tricuspid
c2 Tricuspid valvar annuloplasty,	12.02.04			Valve surgery, Other, Tricuspid
c2 Tricuspid leaflet (valvoplasty) procedure,	12.02.02			Valvuloplasty, Tricuspid
c2 Tricuspid valvar replacement,	12.02.11			Valve replacement, Tricuspid (TVR)
c2 Tricuspid valvar closure,	12.02.70			Valve closure, Tricuspid (exclusion, univentricular approach)
Tricuspid valvectomy,	12.02.22			Valve excision, Tricuspid (without replacement)
c1 Mitral valvar procedure,	12.03.00			Valve surgery, Other, Mitral
c2 Mitral valvar annuloplasty,	12.03.04			Valve surgery, Other, Mitral
c2 Mitral leaflet (valvoplasty) procedure,	12.03.03			Valvuloplasty, Mitral
c2 Mitral valvotomy,	12.03.01			Valve surgery, Other, Mitral
c2 Mitral valvar replacement,	12.03.11			Valve replacement, Mitral (MVR)
Supra-mitral valvar LA-ring excision,	12.01.32			Mitral stenosis, Supravalvar mitral ring repair
c1 Mitral subvalvar apparatus procedure,	12.03.19			Valve surgery, Other, Mitral
c1 AV valvar procedure in double inlet ventricle,	12.46.00			Cardiac procedure, Other
c1 AV septal defect procedure,	12.04.00			AVC (AVSD) repair
c2 AVSD: partial (primum ASD) repair,	12.04.01			AVC (AVSD) repair, Partial (Incomplete) (PAVSD)
c2 AVSD: complete (common valve orifice) repair,	12.05.01			AVC (AVSD) repair, Complete (CAVSD)
AVSD: "intermediate" repair,	12.05.10			AVC (AVSD) repair, Intermediate (Transitional)
c2 AVSD: R AV valvar procedure,	12.04.20			Valvuloplasty, Tricuspid
c2 AVSD: L AV valvar procedure,	12.04.40			Valvuloplasty, Mitral
c2 AVSD: L AV valvar replacement,	12.04.45			Valve replacement, Mitral (MVR)
AVSD: Suturing together sup + inf bridging leaflets to L of septum ("cleft"),	12.48.02			Valvuloplasty, Mitral
AVSD & Tetralogy of Fallot repair,	12.05.11			TOF- AVC (AVSD) repair
<b>Ventricular and ventricular septum procedures</b>				
c1 RV procedure,	12.06.26			Cardiac procedure, Other
Repair of double chambered RV,	12.06.35			DCRV repair
RV aneurysm repair,	12.06.38			Aneurysm, Ventricular, Right, Repair
c1 RV outflow tract procedure,	12.06.00			RVOT procedure
c2 RV outflow tract obstruction relief,	12.06.41			RVOT procedure
c2 Subpulmonary obstruction relief,	12.08.21			RVOT procedure
1.5 ventricle repair: RV outflow tract reconstruction + Glenn anastomosis,	12.06.19			1 1/2 ventricular repair
c1 LV procedure,	12.07.26			Cardiac procedure, Other
c2 LV aneurysm repair,	12.07.37			Aneurysm, Ventricular, Left, Repair

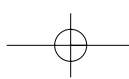




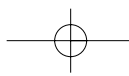
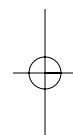
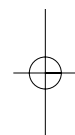
Collective term status	EPC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Partial left ventriculectomy/volume reduction (Batista),	12.07.38					Partial left ventriculectomy (LV volume reduction) (Batista)
c1 LV outflow tract procedure,	12.07.00					Cardiac procedure, Other
c2 LV outflow tract obstruction relief,	12.07.13					Aortic stenosis, Subvalvar, Repair
LV outflow tract myectomy/myotomy,	12.07.11					Aortic stenosis, Subvalvar, Repair
c3 Subaortic obstruction relief,	12.08.22					Aortic stenosis, Subvalvar, Repair
Subaortic fibromuscular shelf resection,	12.07.01					Aortic stenosis, Subvalvar, Repair
LV outflow tract obstruction relief – complex (Konno etc),	12.07.12					Konno procedure
c1 VSD closure,	12.08.01					VSD repair
VSD closure by direct suture,	12.08.02					VSD repair, Primary closure
VSD closure using patch,	12.08.03					VSD repair, Patch
Closure of multiple VSDs,	12.08.16					VSD multiple repair
VSD closure with prosthesis – intraoperatively,	12.08.28					VSD repair
c1 VSD enlargement/creation,	12.08.35					VSD creation/enlargement
VSD enlargement,	12.08.06					VSD creation/enlargement
Open fenestration of VSD patch,	12.08.19					Ventricular septal fenestration
<b>VA valvar and great arterial procedures</b>						
c1 Common arterial trunk (truncus) repair,	12.11.00					Truncus Arteriosus repair
c1 Repair of truncal valve cusp(s) (valvoplasty),	12.11.34					Valvuloplasty, truncal valve
Truncal valve replacement,	12.11.41					Valve replacement, Truncal valve
c1 Pulmonary valvar procedure,	12.13.00					Valve surgery, Other, Pulmonic
Pulmonary valvotomy – open,	12.13.02					Valvuloplasty, Pulmonic
Pulmonary valvar replacement (not conduit),	12.13.21					Valve replacement, Pulmonic (PVR)
Pulmonary valvar replacement using homograft,	12.13.22					Valve replacement, Pulmonic (PVR)
c2 Pulmonary valvectomy,	12.13.12					Valve excision, Pulmonary (without replacement)
Pulmonary valve closure/oversewing,	12.13.15					Valve closure, Semilunar
Pulmonary trunk band (PA band),	12.14.02					PA banding (PAB)
Pulmonary trunk band removal (de-band),	12.14.03					PA debanding
Pulmonary artery ligation,	12.14.31					Ligation, Pulmonary artery
Pulmonary trunk arterioplasty,	12.14.01					PA reconstruction (plasty), Main (trunk)
c1 Pulmonary arterioplasty/reconstruction,	12.14.20					PA reconstruction (Plasty)
Pulmonary arterioplasty/reconstruction – central (proximal to hilar bifurcation),	12.14.21					PA reconstruction (plasty), Branch, Central (within the hilar bifurcation)
Pulmonary arterioplasty/reconstruction – peripheral (at/beyond hilar bifurcation),	12.14.22					PA reconstruction (plasty), Branch, Peripheral (at or beyond the hilar bifurcation)
Pulmonary aneurysm repair,	12.15.24					Aneurysm, Pulmonary artery, Repair
c2 Pulmonary arteriovenous fistula closure,	12.25.07					Pulmonary AV fistula repair/occlusion
c1 Pulmonary embolectomy,	12.15.48					Pulmonary embolectomy
c1 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
c2 Aortic valvoplasty,	12.16.11					Valvuloplasty, Aortic
Aortic valve closure/oversewing,	12.16.61					Valve closure, Semilunar

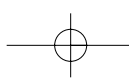


Collective term status	EPC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
						Other annular enlargement procedure
c2						Valve replacement, Aortic (AVR)
						Valve replacement, Aortic (AVR), Homograft
						Valve replacement, Aortic (AVR), Bioprosthetic
						Valve replacement, Aortic (AVR), Mechanical
c1						Aortic root replacement
						Aortic root replacement, Homograft
						Aortic root replacement, Mechanical
c1						Aortic root replacement
c1						Aortic aneurysm repair
						Aortic aneurysm repair
						Ross procedure
						Ross – Konno procedure
c1						Cardiac procedure, Other
c2						Sinus of Valsalva , Aneurysm repair
						Sinus of Valsalva , Aneurysm repair
c1						LV to aorta tunnel repair
c1						AP window repair
c1						Pulmonary artery origin from ascending aorta
						Hemitruncus repair
c1						Aortic stenosis, Supravalvar, Repair
c1						Aortic aneurysm repair
						Aortic aneurysm repair
						Aortic aneurysm repair
						Aortic aneurysm repair
c1						Aortic dissection repair
c1						Peripheral vascular procedure, Other
c1						Vascular ring repair
c2						Pulmonary artery sling repair
c1						Aortic arch repair
c2						Coarctation repair
						Coarctation repair, End to end
						Coarctation repair, Patch aortoplasty
						Coarctation repair, Subclavian flap
						Coarctation repair, End to end, Extended
						Coarctation repair, Interposition graft
c2						Interrupted aortic arch repair
c1						Cardiac procedure, Other
c2						PDA closure
c3						PDA closure, Surgical

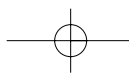


Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
<b>Fallot, double outlet ventricle and transposition procedures</b>						
c1	Tetralogy of Fallot repair,	12.26.01				TOF repair
	Tetralogy of Fallot repair with transannular patch,	12.26.13				TOF repair, Ventriculotomy, Transannular patch
	Tetralogy of Fallot repair without transannular patch,	12.26.20				TOF repair, Ventriculotomy, Nontransannular patch
	RV to pulmonary artery conduit construction,	12.36.01				Cardiac procedure, Other
c1	Double outlet RV (Fallot-type) repair,	12.27.01				DORV repair
c1	Pulmonary atresia & VSD (including Fallot-type) repair,	12.28.01				Pulmonary atresia – VSD (including TOF, PA) repair
	Pulmonary atresia, VSD & MAPCAs repair,	12.28.11				Pulmonary atresia – VSD – MAPCA (pseudotruncus) repair
	Absent pulmonary valve syndrome (Fallot type) repair,	12.26.21				TOF- Absent pulmonary valve repair
c1	Major systemic-to-pulmonary collateral artery (MAPCA) occlusion,	12.25.18				Occlusion MAPCA(s)
c1	Unifocalisation procedure,	12.25.00				Unifocalization MAPCA(s)
c1	Arterial switch procedure,	12.29.21				Arterial switch operation (ASO)
	Senning procedure (atrial inversion),	12.29.01				Senning
	Mustard procedure (atrial inversion),	12.29.02				Mustard
	Rastelli procedure: LV to Ao via VSD & RV to pulm trunk conduit,	12.29.11				Rastelli
	REV procedure: LV to Ao via VSD & direct RV-PA anast (Lecompte),	12.27.45				REV
c1	Complex transposition of great arteries repair (DESCRIBE),	12.29.40				TGA, Other procedures (Nikaido, Kawashima, LV-PA conduit, other)
c1	Double outlet RV repair,	12.29.20				DORV repair
c2	Double outlet RV repair with intraventricular tunnel,	12.27.02				DORV, Intraventricular tunnel repair
c1	Congenitally corrected TGA repair,	12.27.46				Congenitally corrected TGA repair
	Arterial and atrial switch procedures (double switch),	12.29.25				Cardiac procedure, Other
	Arterial switch and Rastelli procedures,	12.29.26				Cardiac procedure, Other
c1	Double outlet LV repair,	12.27.50				DOLV repair
<b>Procedures for functionally univentricular heart</b>						
c1	Bidirectional superior cavopulmonary (Glenn) anastomosis,	12.31.11				Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn)
	Bilateral bidirectional superior cavopulmonary (Glenn) anastomoses,	12.31.44				Bilateral bidirectional cavopulmonary anastomosis (BBDCPA) (bilateral bidirectional Glenn)
c1	Unidirectional superior cavopulmonary (Glenn) anastomosis,	12.31.45				Glenn (Unidirectional cavopulmonary anastomosis) (unidirectional Glenn)
	Hemi-Fontan procedure,	12.31.15				Hemifontan
c1	Fontan type procedure,	12.30.01				Fontan
	Fontan procedure with direct atrio-pulmonary anastomosis,	12.30.32				Fontan, Atrio-pulmonary connection
	Fontan procedure with atrio-ventricular connection,	12.30.13				Fontan, Atrio-ventricular connection
c2	Fenestration of Fontan type connection,	12.30.27				Fontan, Other
	Fontan-type connection without fenestration,	12.30.28				Fontan, Other
c2	Total cavopulmonary connection (TCPC),	12.30.50				Fontan
	Total cavopulmonary conn (TCPC) with lateral atrial tunnel,	12.30.51				Fontan, TCPC, Lateral tunnel

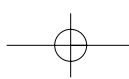




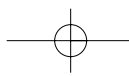
Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Total cavopulmonary conn (TCPC) using extracardiac IVC-PA conduit,	12.30.54					Fontan, TCPC, External conduit
c1 Takedown of Fontan type procedure,	12.30.31					Fontan, Other
Takedown of total cavopulmonary connection (TCPC),	12.30.56					Fontan, Other
c1 Takedown of Glenn,	12.31.42					Cardiac procedure, Other
Damus-Kaye-Stansel type procedure: pulm trunk to aorta end/side anastomosis,	12.09.03					Damus-Kaye-Stansel procedure (DKS) (creation of AP anastomosis without arch reconstruction)
c1 Norwood type procedure,	12.10.00					Norwood procedure
Hypoplastic left heart biventricular repair,	12.10.05					HLHS biventricular repair
c1 Ventricular septation procedure,	12.09.01					Cardiac procedure, Other
<b>Shunt and conduit procedures</b>						
c1 Systemic-to-pulmonary arterial shunt procedure,	12.31.30					Shunt, Systemic to pulmonary
c2 Modified Blalock interposition shunt,	12.31.46					Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS)
Modified R Blalock interposition shunt,	12.31.03					Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS)
Modified L Blalock interposition shunt,	12.31.04					Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS)
Waterston (ascending Ao-RPA) anastomosis,	12.31.05					Shunt, Systemic to pulmonary, Other
c2 Central systemic-PA interposition shunt,	12.31.06					Shunt, Systemic to pulmonary, Central (from aorta or to main pulmonary artery)
c1 Closure of systemic-to-PA shunt,	12.31.31					Shunt, Ligation and takedown
c1 Conduit construction procedure,	12.36.00					Cardiac procedure, Other
c2 RV to pulmonary artery conduit construction,	12.36.01					Conduit placement, RV to PA
LV to pulmonary artery conduit construction,	12.36.02					Conduit placement, LV to PA
c1 Procedure involving constructed cardiac conduit/shunt,	12.36.40					Conduit reoperation
Replacement of cardiac conduit,	12.36.10					Conduit reoperation
<b>Coronary arterial surgical and transluminal procedures</b>						
c1 Anomalous coronary artery (eg ALCAPA) repair,	12.23.00					Anomalous origin of coronary artery from pulmonary artery repair
c1 Coronary fistula procedure,	12.23.07					Coronary artery procedure, Other
Ligation of coronary fistula,	12.23.11					Coronary artery fistula ligation
c1 Coronary arterial bypass graft (CABG) procedure,	12.23.08					Coronary artery bypass
c1 Coronary arterial procedure (DESCRIBE),	12.23.09					Coronary artery procedure, Other
Coronary fistula transluminal embolisation,	12.23.13					Coil embolisation
Transluminal intracoronary injection of thrombolytic agent,	12.23.30					Cardiac procedure, Other
c1 Transluminal balloon coronary angioplasty (PTCA),	12.23.31					Balloon dilation
c1 Transluminal coronary stent implantation,	12.23.38					Stent placement
Transluminal chemical occlusion of coronary artery,	12.23.42					Cardiac procedure, Other



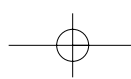




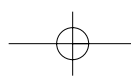
Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
c2 Plication of hemidiaphragm,	12.32.70					Diaphragm application
c2 Thoracic duct occlusion,	12.32.28					Ligation, Thoracic duct
c2 Instigation of renal dialysis,	12.32.90					
c1 Cardiac support procedure,	12.87.01					Cardiac procedure, Other
c2 Intra-aortic balloon pump (IABP) insertion,	12.87.10					Intra-aortic balloon pump (IABP) insertion
Intra-aortic balloon pump (IABP) insertion – 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
c2 Ventricular assist device implantation,	12.87.21					Right/Left heart assist device procedure
RV assist device implantation,	12.87.22					Right/Left heart assist device procedure
LV 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
Cardiac support using ECMO circuitry,	12.87.25					ECMO procedure
c1 Cardiomyoplasty procedure,	12.87.31					Cardiac procedure, Other
Prosthetic heart implantation,	12.37.04					Right/Left heart assist device procedure
Sternotomy wound drainage,	12.65.56					
<b>Thorax and lung procedures</b>						
c1 Debridement of chest wall incision,	12.65.45					Thoracic and/or mediastinal procedure, Other
c1 Anterior chest wall (pectus) repair,	12.65.23					Pectus repair
Pectus carinatum repair,	12.65.13					Pectus repair
c1 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					Sternotomy wound drainage
c1 Pleural procedure (DESCRIBE),	12.65.89					Pleural procedure, Other
c2 Insertion of pleural tube drain,	12.32.80					Pleural drainage procedure
c2 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
c1 Bronchoscopy,	12.64.00					Bronchoscopy
Bronchoscopic removal of foreign body,	12.64.08					Bronchoscopy
c1 Tracheal procedure (DESCRIBE),	12.64.20					Tracheal procedure
c2 Tracheostomy creation,	12.64.21					Postoperative tracheostomy
c2 Tracheobronchial reconstruction procedure,	12.64.40					Tracheal procedure
c1 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
Pneumonectomy,	12.66.06					Lung procedure, Other
Lung sequestration repair,	12.66.07					Lung procedure, Other
c1 Thoracic/mediastinal procedure (DESCRIBE),	12.80.00					Thoracic and/or mediastinal procedure, Other
<b>Transcatheter procedures</b>						
c1 Transluminal catheter procedure,	12.45.00					Cardiac procedure, Other
c1 Diagnostic catheterisation procedure,	13.05.01					Cardiac procedure, Other
Transluminal atrial trans-septal puncture,	12.45.01					Cardiac procedure, Other
c1 Transluminal retrieval of foreign body,	12.45.04					Cardiac procedure, Other
c1 Balloon dilation of pulmonary vein or pathway,	12.00.24					Balloon dilation
c1 Stent placement in pulmonary vein or pathway,	12.00.25					Stent placement
c1 Balloon dilation of systemic vein or pathway,	12.00.43					Balloon dilation

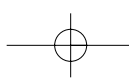




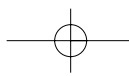


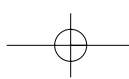
Collective term status	EPC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
c1 Stent placement in systemic vein or pathway,	12.00.44					Stent placement
c1 Balloon atrial septostomy by pull back (Rashkind),	12.01.41					ASD creation, Balloon septostomy (BAS) (Rashkind)
Blade atrial septostomy,	12.01.44					ASD creation, Blade septostomy
c1 Transluminal fenestration of atrial septum/tunnel,	12.01.47					Cardiac procedure, Other
c1 ASD closure with transluminal prosthesis,	12.01.06					ASD repair, Device
Patent foramen ovale (PFO) closure with transluminal prosthesis,	12.01.07					ASD repair, Device
RA septum/tunnel fenestration closure with transluminal device,	12.30.21					Device closure
c1 Balloon mitral valvotomy,	12.03.10					Balloon dilation
Transluminal RV biopsy,	12.06.25					Cardiac procedure, Other
Balloon dilation of RV outflow tract,	12.06.05					Balloon dilation
Stent placement in RV outflow tract,	12.06.18					Stent placement
Balloon dilation of LV outflow tract,	12.07.07					Balloon dilation
VSD closure with transluminal prosthesis,	12.08.07					VSD repair, Device
Transluminal fenestration of VSD patch,	12.08.20					Cardiac procedure, Other
Balloon pulmonary valvotomy,	12.13.05					Balloon dilation
c1 Pulmonary valvar transluminal perforation & dilation,	12.13.09					Balloon dilation
Balloon aortic valvotomy,	12.16.05					Balloon dilation
c1 Aortic valvar transluminal perforation & dilation,	12.16.25					Balloon dilation
c1 Balloon dilation of pulmonary trunk,	12.14.05					Balloon dilation
c1 Balloon dilation of RPA,	12.15.03					Balloon dilation
c1 Balloon dilation of LPA,	12.15.04					Balloon dilation
Stent placement in RPA,	12.15.13					Stent placement
Stent placement in LPA,	12.15.14					Stent placement
Transluminal embolectomy from pulmonary tree,	12.15.49					Pulmonary embolectomy
Aortopulmonary window closure with transcatheter device,	12.12.08					Device closure
Balloon dilation of native aortic coarct/hypoplasia,	12.18.04					Balloon dilation
Balloon dilation of aortic re-coarctation,	12.18.08					Balloon dilation
c1 Stent placement at site of aortic coarctation,	12.18.09					Stent placement
Stent placement in arterial duct (PDA),	12.10.14					Stent placement
c1 Arterial duct (PDA) closure with transluminal prosthesis,	12.24.04					PDA closure, Device
Arterial duct (PDA) closure with transluminal coil,	12.24.21					PDA closure, Device
Arterial duct (PDA) closure with transluminal Amplatzer plug,	12.24.22					PDA closure, Device
c1 Transluminal procedure to MAPCA,	12.25.19					Thoracic and/or mediastinal procedure, Other
Stent placement in MAPCA,	12.25.62					Stent placement
c1 Arteriovenous fistula embolisation,	12.25.02					Coil embolization
c1 Balloon dilation of systemic-PA shunt,	12.31.19					Balloon dilation
Occlusion of systemic-PA shunt by transluminal embolus/device,	12.31.34					Device closure
Balloon dilation of cardiac conduit,	12.36.14					Balloon dilation
Stent placement in cardiac conduit,	12.36.23					Stent placement
Pericardiocentesis – transcatheter,	12.32.43					Pericardial drainage procedure
Stent redilation,	12.45.10					Balloon dilation
c1 Stent placement (DESCRIBE),	12.45.11					Stent placement
c1 Balloon dilation (DESCRIBE),	12.45.12					Balloon dilation
Transluminal device closure (DESCRIBE),	12.45.13					Device closure
Transluminal coil embolisation (DESCRIBE),	12.45.14					Coil embolization
<b>Procedure related complications</b>						
No post-procedural complications,	15.90.03					None



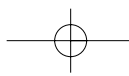


Collective term status	EPC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
c1 Post-procedural complication (DESCRIBE), Intraoperative death, Death within 30 days of procedure, Death unrelated to cardiac procedure, Cardiac arrest during procedure, Cardiac arrest following procedure,	15.90.01 12.33.31 12.33.33 12.33.34 15.00.01 15.00.02	998.9 997.1 997.1		T81.8 T81.8 I97.8		Other postoperative complication Arrhythmia Postoperative cardiac arrest
c1 Post-procedural low cardiac output, Post-procedural requirement for mechanical circulatory support, Myocardial infarction following procedure,	15.00.03 15.00.09 15.00.05	997.1 997.1		I97.1 I97.8		Postoperative low cardiac output Postoperative mechanical circulatory support (IABP, VAD, ECMO, or CPS) Myocardial infarction
c1 Post-procedural hypovolaemia, c1 Arrhythmia following procedure, c2 Post-procedural complete AV block, Post-procedural complete AV block – requiring temporary pacemaker, Post-procedural complete AV block – requiring permanent pacemaker,	15.00.30 15.60.02 11.06.17 11.06.32 11.06.33	998.0 997.1 997.1 997.1 997.1	410	T81.1 I97.8 I44.2 I44.2 I44.2	I21 I49.9 Y83.8 Y83.8	Other postoperative complication Postoperative arrhythmia Arrhythmia, Heart block, Acquired Postoperative complete AV block requiring temporary pacemaker Postoperative complete AV block requiring permanent pacemaker
c1 Post-procedural haemorrhage, Post-procedural haemorrhage requiring reoperation,	15.02.00 15.02.65	998.1 998.1		T81.0 T81.0		Other postoperative complication Bleeding requiring reoperation
c1 Post-procedural coagulopathy, c1 Post-procedural haemolysis,	15.02.03 15.02.07	286.9 283.1	E878.8 E878.8	D68.9 D59.8	Y83.8 Y83.8	Other postoperative complication Other postoperative complication
c1 General systemic complication of cardiac procedure, Multiple organ dysfunction syndrome (MODS), Post-procedural metabolic derangement, Post-procedural acidosis, Post-procedural septicaemia, Capillary leak syndrome,	15.80.00 15.80.16 15.80.01 15.80.15 15.80.05 15.80.06	998.9 998.9 277.9 276.2 998.5 998.8	E878.8	T81.8 T81.8 E88.9 E87.2 T81.4 T81.8	Y83.8 Y83.8	Other postoperative complication Other postoperative complication Other postoperative complication Postoperative acidosis Postoperative septicemia Other postoperative complication
<b>Pulmonary and thoracic complications</b>						
c1 Respiratory complication after cardiac procedure, Post-procedural requirement for mechanical respiratory support >7 days, Post-procedural requirement for reintubation, Post-procedural pulmonary infection, Post-procedural lung collapse, Residual pulmonary hypertension after relief of L to R shunt, Post-procedural pulmonary hypertensive crises,	15.80.20 15.80.32 15.80.33 15.80.21 15.80.31 15.22.31 15.80.22	997.3 518.5 518.5 997.3 518.0 416.8 518.5	E878.8	J95.9 J95.3 J95.1 J95.8 J98.1 I27.8 J95.8	J22 Y83.8 Y83.8	Other postoperative complication Postoperative respiratory insufficiency requiring mechanical ventilatory support >7 days Postoperative respiratory insufficiency requiring reintubation Pneumonia Other postoperative complication Other postoperative complication Postoperative pulmonary hypertension crises (PA pressure > systemic pressure)





Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
c1 Post-procedural pleural effusion,	15.80.50	511.9	E878.8	J90	Y83.8	Pleural effusion
Post-procedural R pleural effusion,	15.80.51	511.9	E878.8	J90	Y83.8	Pleural effusion
Post-procedural L 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
Post-procedural chylothorax,	15.80.55	457.8	E878.8	J94.0	Y83.8	Chylothorax
Post-procedural haemothorax,	15.80.56	998.1		T81.0		Pleural effusion
c1 Post-procedural pneumothorax,	15.80.62	512	E878.8	J93.9	Y83.8	Pneumothorax
Post-procedural requirement for tracheostomy,	15.80.86	997.3		J95.3		
Post-procedural complication involving tracheo-bronchial tree,	15.80.70	519.1	997.3	J98.0	Y83.8	Tracheal disease, Other
c1 Post-procedural phrenic nerve palsy,	15.80.90	519.4		J98.6		Phrenic nerve injury/ paralyzed diaphragm
Post-procedural recurrent laryngeal nerve palsy,	15.80.93	352.3	998.2	G52.2	T81.2	Recurrent laryngeal nerve injury/paralyzed vocal cord
Post-procedural Horner's syndrome,	15.80.94	337.9	998.2	G90.2	T81.2	Other postoperative complication
<b>Renal, GI tract and CNS complications</b>						
c1 Post-procedural 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
Post-procedural gastrointestinal bleeding,	15.82.21	578.9	997.4	K92.2	Y83.8	Other postoperative complication
Post-procedural inability to sustain gastric feeding,	15.82.23	997.4		K91.8		Other postoperative complication
Post-procedural intestinal obstruction,	15.82.28	997.4		K91.3		Other postoperative complication
c1 Post-procedural peritonitis,	15.82.29	567.9	997.4	K65.0	Y83.8	Other postoperative complication
Post-procedural protein losing enteropathy,	15.82.33	579.8	E878.8	K90.4	Y83.8	Other postoperative complication
c1 Post-procedural hepatic impairment,	15.82.43	997.4		K72.0	Y83.8	Other postoperative complication
Post-procedural acute pancreatitis,	15.82.47	577.0	997.4	K85	Y83.8	Other postoperative complication
c1 Neurological complication after cardiac procedure,	15.82.50	997.0		G97.9		Other postoperative complication
c2 Post-procedural new onset seizures,	15.82.67	345.9	997.0	G40.9	Y83.8	Postoperative new onset seizures
Post-procedural generalised seizures,	15.82.51	345.1	997.0	G40.3	Y83.8	Postoperative new onset seizures
c2 Post-procedural temporary neurological impairment,	15.82.53	997.0		G97.8		Other postoperative complication
c2 Post-procedural permanent neurological impairment,	15.82.57	997.0		G97.8		Postoperative neurological deficit persisting at discharge
Post-procedural neurological impairment persisting at discharge,	15.82.65	997.0		G97.8		Postoperative neurological deficit persisting at discharge
Post-procedural brain death,	15.82.64	997.0		G97.8		Other postoperative complication
Post-procedural cerebral abscess,	15.82.66	324.0	997.0	G06.0	Y83.8	Other postoperative complication
Brain abscess,	14.03.40	324.0		G06.0		
<b>Wound and pericardial complications</b>						
c1 Median sternotomy complication,	15.03.00	998.9		T81.9		Other postoperative complication
c2 Infection of median sternotomy wound,	15.03.03	998.5		T81.4		Other postoperative complication



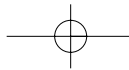
Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Keloid/hypertrophic scar of median sternotomy wound,	15.03.15	701.4		L91.0		Other postoperative complication
c1 Lateral thorcotomy complication,	15.03.30	998.9		T81.9		Other postoperative complication
c2 Infection of lateral thorcotomy wound,	15.03.32	998.5		T81.4		Other postoperative complication
Wound dehiscence,	15.03.51	998.3		T81.3		Wound dehiscence
c1 Wound infection,	15.03.50	998.9		T81.9		Wound infection
Mediastinitis,	15.03.52	519.2		J98.5		Mediastinitis
c1 Post-pericardiotomy syndrome,	10.08.11	429.4		I97.0		Pericardial effusion
Pericardial effusion requiring drainage,	15.83.00	423.9		I31.3		Pericardial effusion requiring drainage
Tamponade,	10.08.13	423.9		I31.9		Pericardial effusion requiring drainage
<b>Catheterisation and support device complications</b>						
c1 Cardiac catheterisation complication,	15.50.00	998.9	E879.0	T81.9	Y84.0	
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	
Post-procedural femoral arterial complication,	15.24.20	997.2		T81.7		Peripheral vascular, Other
Failed attempt to site coil/device at catheterisation,	15.50.40	E874.5		T82.8		
c1 Intraaortic balloon pump (IABP) complication,	15.57.21	996.1		T82.9		
c1 ECMO circuit complication,	15.57.02	996.1		T82.9		
Ventricular assist device complication,	15.57.03	996.1		T82.9		

## Appendix – EPCC to STS/EACTS boxed terms

Each STS/EACTS term requires two or more EPCC terms to be equivalent

### Diagnostic combined terms

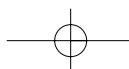
Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Functionally univentricular heart,	01.01.22	746.9		Q20.9		Single ventricle, Heterotaxia syndrome
Abnormal atrial arrangement,	01.03.06	746.9		Q20.9		
Mitral atresia,	06.02.01	746.8		Q23.2		Single ventricle, Mitral atresia
Functionally univentricular heart,	01.01.22	746.9		Q20.9		
Tricuspid atresia,	06.01.01	746.1		Q22.4		Single ventricle, Tricuspid atresia
Functionally univentricular heart,	01.01.22	746.9		Q20.9		
AVSD with ventricular imbalance,	06.07.26	745.6		Q21.2		Single ventricle, Unbalanced AV Canal
Functionally univentricular heart,	01.01.22	746.9		Q20.9		
Complete transposition of great arteries (IVS),	01.01.02	745.1		Q20.3		TGA, IVS – LVOTO
LV outflow tract obstruction,	07.09.01	746.8		Q24.8		
Discordant VA connections (TGA),	01.05.01	745.1		Q20.3		TGA, VSD
VSD,	07.10.00	745.4		Q21.0		
Discordant VA connections (TGA),	01.05.01	745.1		Q20.3		TGA, VSD – LVOTO
VSD,	07.10.00	745.4		Q21.0		
LV outflow tract obstruction,	07.09.01	746.8		Q24.8		
Tricuspid regurgitation,	06.01.91	746.8		Q22.8		Tricuspid regurgitation and tricuspid stenosis
Tricuspid stenosis,	06.01.92	746.1		Q22.4		
Mitral regurgitation,	06.02.91	746.6		Q23.3		Mitral regurgitation and stenosis
Mitral stenosis,	06.02.92	746.5		Q23.2		



Collective term status	EPC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
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, 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, 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

### Procedural combined terms

VSD closure, ASD closure,	12.08.01 12.01.01					VSD repair + ASD repair
VSD closure, Pulmonary trunk band removal (de-band),	12.08.01 12.14.03					VSD repair + PA debanding
Mitral valvar replacement, Aortic valvar replacement,	12.03.11 12.16.21					Valve replacement, Mitral (MVR) + Valve replacement, Aortic (AVR)



Collective term status	EPC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Tetralogy of Fallot repair, Transatrial approach,	12.26.01 12.08.11					TOF repair, No ventriculotomy
Tetralogy of Fallot repair with transannular patch, Trans-RV approach,	12.26.13 12.08.12					TOF repair, Ventriculotomy, Transannular patch
Tetralogy of Fallot repair without transannular patch, Trans-RV approach,	12.26.20 12.08.12					TOF repair, Ventriculotomy, Non-transannular patch
Tetralogy of Fallot repair, RV to pulmonary artery conduit construction,	12.26.01 12.36.01					TOF repair, RV-PA conduit
Arterial switch procedure, VSD closure,	12.29.21 12.08.01					Arterial switch operation (ASO) and VSD repair
Congenitally corrected TGA repair, Arterial and atrial switch procedures (double switch),	12.27.46 12.29.25					Congenitally corrected TGA repair, Atrial Switch and ASO (Double switch)
Congenitally corrected TGA repair, Arterial switch and Rastelli procedures,	12.27.46 12.29.26					Congenitally corrected TGA repair, Atrial Switch and Rastelli
Congenitally corrected TGA repair, VSD closure,	12.27.46 12.08.01					Congenitally corrected TGA repair, VSD closure
Congenitally corrected TGA repair, VSD closure, LV to pulmonary artery conduit construction,	12.27.46 12.08.01 12.36.02					Congenitally corrected TGA repair, VSD closure and LV to PA conduit
Total cavopulmonary conn (TCPC) with lateral atrial tunnel, Fenestration of Fontan type connection,	12.30.51 12.30.27					Fontan, TCPC, Lateral tunnel, Fenestrated
Total cavopulmonary conn (TCPC) with lateral atrial tunnel, Fontan-type connection without fenestration,	12.30.51 12.30.28					Fontan, TCPC, Lateral tunnel, Non-fenestrated
Total cavopulmonary conn (TCPC) using extracardiac IVC-PA conduit, Fenestration of Fontan type connection,	12.30.54 12.30.27					Fontan, TCPC, External conduit, Fenestrated
Total cavopulmonary conn (TCPC) using extracardiac IVC-PA conduit, Fontan-type connection without fenestration,	12.30.54 12.30.28					Fontan, TCPC, External conduit, Non-fenestrated
Coronary arterial bypass graft (CABG) procedure, Aortic valvar replacement,	12.23.08 12.16.21					Coronary artery bypass + Valve replacement, Aortic (AVR)
Coronary arterial bypass graft (CABG) procedure, Aortic valvar replacement,	12.23.08 12.16.21					Coronary artery bypass + Valve replacement, Aortic (AVR)
Coronary arterial bypass graft (CABG) procedure, Aortic valvar replacement, Mitral valvar replacement,	12.23.08 12.16.21 12.03.11					Coronary artery bypass + Valve replacement, Aortic (AVR) + Valve replacement, Mitral (MVR)
Coronary arterial bypass graft (CABG) procedure, Aortic valvar replacement, Mitral leaflet (valvoplasty) procedure,	12.23.08 12.16.21 12.03.03					Coronary artery bypass + Valve replacement, Aortic (AVR) + Valvuloplasty, Mitral



Collective term status	EPCC code	ICD-9	ICD-9 additional	ICD-10	ICD-10 additional	STS/EACTS equivalent
Coronary arterial bypass graft (CABG) procedure, Mitral valvar replacement,	12.23.08 12.03.11					Coronary artery bypass + Valve replacement, Mitral (MVR)
Coronary arterial bypass graft (CABG) procedure, Mitral leaflet (valvoplasty) procedure,	12.23.08 12.03.03					Coronary artery bypass + Valvuloplasty, Mitral
Interrupted aortic arch repair, Aortopulmonary window closure,	12.21.00 12.12.01					Interrupted aortic arch repair + AP window repair
Mustard procedure (atrial inversion), Pulmonary trunk band removal (de-band),	12.29.02 12.14.03					Mustard + PA debanding
Mustard procedure (atrial inversion), VSD closure,	12.29.02 12.08.01					Mustard + VSD repair
Pulmonary trunk band (PA band), Systemic-to-pulmonary arterial shunt procedure,	12.14.02 12.31.30					PA Banding (PAB) + Shunt, Systemic to pulmonary
Rastelli procedure: LV to Ao via VSD & RV to pulm trunk conduit, VSD enlargement/creation,	12.29.11 12.08.06					Rastelli + VSD creation/enlargement
REV procedure: LV to Ao via VSD & direct RV-PA anast (Lecompte), VSD enlargement/creation,	12.27.45 12.08.06					REV + VSD creation/enlargement
Senning procedure (atrial inversion), Pulmonary trunk band removal (de-band),	12.29.01 12.14.03					Senning + PA debanding
Senning procedure (atrial inversion), VSD closure,	12.29.01 12.08.01					Senning + VSD repair