



**STS Congenital Heart Surgery Data Summary
Children**

STS Period Ending 06/30/2018



Table 1: Children number submitted, in analysis, and operative mortality

	STS	
	Last 1 Year Jul 2017 - Jun 2018	Last Four Years Jul 2014 - Jun 2018
Number of Operations/Patients		
Operations in Analysis ¹	10,567	42,593
Patients in Analysis ²	9,747	39,521
Operative Mortality³		
Number of Mortalities	83	373
Number Eligible	9,219	37,538
Mortality Percent	0.9%	1.0%
Mortality (95% CI)	(0.7 , 1.1)	(0.9 , 1.1)

¹Analysis includes only operations classified as "CPB" or "No CPB, Cardiovascular"

²Patient Numbers represent distinct patient admissions

³Mortality numbers are patient-based only for admission in the analysis population at sites with adequate mortality data



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 Duke Clinical Research Institute

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Table 2: Primary diagnosis, 35 Most Frequent for Children, Last 4 Years (Jul 2014 - Jun 2018)

Primary Diagnosis	STS	
	N	% of All
ASD, Secundum	3,960	9.3%
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	2,063	4.8%
Aortic stenosis, Subvalvar	1,904	4.5%
Hypoplastic left heart syndrome (HLHS)	1,678	3.9%
Pulmonary insufficiency	1,609	3.8%
Conduit failure	1,493	3.5%
ASD, Sinus venosus	1,115	2.6%
Cardiac, Other	1,079	2.5%
Coarctation of aorta	963	2.3%
Vascular ring	956	2.2%
Cardiomyopathy (including dilated, restrictive, and hypertrophic)	941	2.2%
Mitral regurgitation	907	2.1%
Aortic insufficiency	894	2.1%
AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum)	833	2.0%
Arrhythmia, Pacemaker, Indication for replacement	786	1.8%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	766	1.8%
Single ventricle, Tricuspid atresia	746	1.8%
Single ventricle, DILV	594	1.4%
Open sternum with open skin (includes membrane placed to close skin)	592	1.4%
Partial anomalous pulmonary venous connection (PAPVC)	590	1.4%
TOF, Pulmonary stenosis	520	1.2%
Arrhythmia, Heart block	497	1.2%
Aortic insufficiency and aortic stenosis	482	1.1%
Miscellaneous, Other	479	1.1%
Single ventricle, Heterotaxia syndrome	470	1.1%
Aortic stenosis, Valvar	461	1.1%
AVC (AVSD), Complete (CAVSD)	449	1.1%
Pulmonary atresia, IVS	409	1.0%
Tricuspid regurgitation, non-Ebstein's related	403	0.9%
Ebstein's anomaly	396	0.9%
Pulmonary artery stenosis, Branch, Central (within the hilar bifurcation)	396	0.9%
AVC (AVSD), Intermediate (transitional)	391	0.9%
Arrhythmia, Heart block, Acquired	384	0.9%
Pulmonary stenosis, Valvar	382	0.9%
Pulmonary atresia, VSD-MAPCA	378	0.9%



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Table 3: Primary procedure, 35 Most Frequent for Children, Last 4 Years (Jul 2014 - Jun 2018)

Primary Procedure	STS		
	N	% of All	% Mort.
ASD repair, Patch	3,095	7.7%	0.1%
Fontan, TCPC, External conduit, Fenestrated	1,843	4.6%	1.2%
VSD repair, Patch	1,831	4.5%	0.2%
Pacemaker implantation, Permanent	1,649	4.1%	0.6%
PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation)	1,309	3.2%	0.6%
Fontan, TCPC, External conduit, Nonfenestrated	1,275	3.2%	0.5%
Transplant, Heart	1,198	3.0%	3.5%
RVOT procedure	1,185	2.9%	0.3%
Aortic stenosis, Subvalvar, Repair	1,152	2.8%	0.2%
Valvuloplasty, Mitral	1,092	2.7%	0.6%
Pacemaker procedure	1,064	2.6%	0.4%
Conduit placement, RV to PA	1,060	2.6%	0.7%
Delayed sternal closure	880	2.2%	0.8%
Valve replacement, Pulmonic (PVR)	878	2.2%	0.1%
Mediastinal exploration	856	2.1%	0.9%
Vascular ring repair	817	2.0%	0.1%
ASD repair, Primary closure	716	1.8%	0.0%
Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	707	1.7%	0.4%
Conduit reoperation	687	1.7%	0.3%
Valve replacement, Mitral (MVR)	663	1.6%	2.9%
Valvuloplasty, Tricuspid	619	1.5%	1.3%
Valvuloplasty, Aortic	591	1.5%	0.3%
ASD repair, Patch + PAPVC repair	569	1.4%	0.0%
AVC (AVSD) repair, Partial (Incomplete) (PAVSD)	469	1.2%	0.0%
Aortic arch repair	455	1.1%	0.7%
Fontan, TCPC, Lateral tunnel, Fenestrated	451	1.1%	0.7%
VSD repair, Primary closure	406	1.0%	0.0%
Coarctation repair, End to end, Extended	390	1.0%	0.5%
Explantation of pacing system	385	1.0%	0.0%
PAPVC repair	383	0.9%	0.0%
PA, reconstruction (plasty), Main (trunk)	374	0.9%	0.8%
Ross procedure	340	0.8%	0.6%
Aortic stenosis, Subvalvar, Repair, With myectomy for IHSS	338	0.8%	0.9%
Pericardial drainage procedure	329	0.8%	1.8%
PAPVC repair, Baffle redirection to left atrium with systemic vein translocation (Warden) (SVC sewn to right atrial appendage)	318	0.8%	0.0%