



STS Congenital Heart Surgery Data Summary
Children



STS Period Ending 12/31/2018

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

	STS	
	Last 1 Year Jan 2018 - Dec 2018	Last Four Years Jan 2015 - Dec 2018
Number of Operations/Patients		
Operations in Analysis ¹	10,925	42,976
Patients in Analysis ²	10,077	39,820
Operative Mortality³		
Number of Mortalities	108	407
Number Eligible	10,005	39,644
Mortality Percent	1.1%	1.0%
Mortality (95% CI)	(0.9 , 1.3)	(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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Children**

 **Duke Clinical Research Institute**

STS Period Ending 12/31/2018

Table 2: Primary diagnosis, 35 Most Frequent for Children, Last 4 Years (Jan 2015 - Dec 2018)

Primary Diagnosis	STS	
	N	% of All
ASD, Secundum	4,014	9.3%
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	2,070	4.8%
Aortic stenosis, Subvalvar	1,871	4.4%
Hypoplastic left heart syndrome (HLHS)	1,651	3.8%
Pulmonary insufficiency	1,589	3.7%
Conduit failure	1,532	3.6%
ASD, Sinus venosus	1,123	2.6%
Cardiac, Other	1,077	2.5%
Vascular ring	1,001	2.3%
Coarctation of aorta	966	2.2%
Cardiomyopathy (including dilated, restrictive, and hypertrophic)	952	2.2%
Mitral regurgitation	916	2.1%
Aortic insufficiency	883	2.1%
AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum)	863	2.0%
Arrhythmia, Pacemaker, Indication for replacement	766	1.8%
Single ventricle, Tricuspid atresia	760	1.8%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	739	1.7%
Open sternum with open skin (includes membrane placed to close skin)	624	1.5%
Partial anomalous pulmonary venous connection (PAPVC)	618	1.4%
Single ventricle, DILV	595	1.4%
TOF, Pulmonary stenosis	519	1.2%
Arrhythmia, Heart block	504	1.2%
Aortic insufficiency and aortic stenosis	494	1.1%
Miscellaneous, Other	489	1.1%
Aortic stenosis, Valvar	463	1.1%
Single ventricle, Heterotaxia syndrome	458	1.1%
AVC (AVSD), Complete (CAVSD)	425	1.0%
Tricuspid regurgitation, non-Ebstein's related	404	0.9%
Pulmonary artery stenosis, Branch, Central (within the hilar bifurcation)	403	0.9%
Ebstein's anomaly	393	0.9%
Pulmonary atresia, IVS	389	0.9%
AVC (AVSD), Intermediate (transitional)	388	0.9%
Arrhythmia, Heart block, Acquired	381	0.9%
Pulmonary atresia, VSD-MAPCA	379	0.9%
Pulmonary stenosis, Valvar	376	0.9%



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Table 3: Primary procedure, 35 Most Frequent for Children, Last 4 Years (Jan 2015 - Dec 2018)

Primary Procedure	STS		
	N	% of All	% Mort.
ASD repair, Patch	3,239	7.6%	0.1%
VSD repair, Patch	1,952	4.6%	0.2%
Fontan, TCPC, External conduit, Fenestrated	1,852	4.3%	1.3%
Pacemaker implantation, Permanent	1,728	4.0%	0.7%
PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation)	1,390	3.2%	0.4%
Fontan, TCPC, External conduit, Nonfenestrated	1,377	3.2%	0.5%
Transplant, Heart	1,306	3.1%	4.1%
RVOT procedure	1,277	3.0%	0.2%
Aortic stenosis, Subvalvar, Repair	1,211	2.8%	0.2%
Valvuloplasty, Mitral	1,170	2.7%	0.7%
Pacemaker procedure	1,110	2.6%	0.4%
Conduit placement, RV to PA	1,035	2.4%	0.9%
Delayed sternal closure	962	2.2%	0.8%
Valve replacement, Pulmonic (PVR)	915	2.1%	0.2%
Vascular ring repair	905	2.1%	0.1%
Mediastinal exploration	904	2.1%	0.9%
Conduit reoperation	798	1.9%	0.4%
ASD repair, Primary closure	791	1.8%	0.0%
Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	722	1.7%	0.3%
Valve replacement, Mitral (MVR)	717	1.7%	2.9%
Valvuloplasty, Tricuspid	659	1.5%	1.2%
Valvuloplasty, Aortic	614	1.4%	0.3%
ASD repair, Patch + PAPVC repair	590	1.4%	0.0%
AVC (AVSD) repair, Partial (Incomplete) (PAVSD)	511	1.2%	0.0%
Aortic arch repair	472	1.1%	1.5%
Fontan, TCPC, Lateral tunnel, Fenestrated	439	1.0%	0.7%
VSD repair, Primary closure	436	1.0%	0.0%
Coarctation repair, End to end, Extended	429	1.0%	0.2%
PAPVC repair	403	0.9%	0.2%
Explantation of pacing system	402	0.9%	0.2%
PA, reconstruction (plasty), Main (trunk)	388	0.9%	0.8%
Pericardial drainage procedure	385	0.9%	2.1%
PAPVC repair, Baffle redirection to left atrium with systemic vein translocation (Warden) (SVC sewn to right atrial appendage)	360	0.8%	0.0%
Aortic stenosis, Subvalvar, Repair, With myectomy for IHSS	357	0.8%	0.6%
Ross procedure	349	0.8%	0.6%