



STS Congenital Heart Surgery Data Summary
Children

Duke Clinical Research Institute

STS Period Ending 06/30/2017

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

	STS	
	Last 1 Year Jul 2016 - Jun 2017	Last Four Years Jul 2013 - Jun 2017
Number of Operations/Patients		
Operations in Analysis ¹	10,215	41,942
Patients in Analysis ²	9,457	38,918
Operative Mortality³		
Number of Mortalities	92	377
Number Eligible	8,913	36,812
Mortality Percent	1.0%	1.0%
Mortality (95% CI)	(0.8 , 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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Table 2: Primary diagnosis, 35 Most Frequent for Children, Last 4 Years (Jul 2013 - Jun 2017)

Primary Diagnosis	N	STS
		% of All
ASD, Secundum	3,893	9.3%
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	1,955	4.7%
Aortic stenosis, Subvalvar	1,817	4.3%
Hypoplastic left heart syndrome (HLHS)	1,700	4.1%
Pulmonary insufficiency	1,638	3.9%
Conduit failure	1,516	3.6%
Cardiac, Other	1,141	2.7%
ASD, Sinus venosus	1,101	2.6%
Coarctation of aorta	965	2.3%
Aortic insufficiency	952	2.3%
Cardiomyopathy (including dilated, restrictive, and hypertrophic)	952	2.3%
Mitral regurgitation	921	2.2%
Vascular ring	913	2.2%
AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum)	825	2.0%
Arrhythmia, Pacemaker, Indication for replacement	790	1.9%
Single ventricle, Tricuspid atresia	778	1.9%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	739	1.8%
Single ventricle, DILV	587	1.4%
Partial anomalous pulmonary venous connection (PAPVC)	529	1.3%
Miscellaneous, Other	497	1.2%
Arrhythmia, Heart block	483	1.2%
TOF, Pulmonary stenosis	479	1.1%
Open sternum with open skin (includes membrane placed to close skin)	461	1.1%
AVC (AVSD), Complete (CAVSD)	458	1.1%
Aortic insufficiency and aortic stenosis	458	1.1%
Aortic stenosis, Valvar	453	1.1%
Single ventricle, Heterotaxia syndrome	434	1.0%
Pulmonary atresia, IVS	402	1.0%
Ebstein's anomaly	393	0.9%
Pulmonary stenosis, Valvar	393	0.9%
Pulmonary atresia, VSD (Including TOF, PA)	387	0.9%
Arrhythmia, Heart block, Acquired	384	0.9%
Pulmonary artery stenosis, Branch, Central (within the hilar bifurcation)	382	0.9%
Pulmonary atresia, VSD-MAPCA	381	0.9%
AVC (AVSD), Intermediate (transitional)	365	0.9%



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Table 3: Primary procedure, 35 Most Frequent for Children, Last 4 Years (Jul 2013 - Jun 2017)

Primary Procedure	STS		
	N	% of All	% Mort.
ASD repair, Patch	2,948	7.4%	0.1%
Fontan, TCPC, External conduit, Fenestrated	1,851	4.7%	1.2%
VSD repair, Patch	1,748	4.4%	0.3%
Pacemaker implantation, Permanent	1,578	4.0%	0.4%
Fontan, TCPC, External conduit, Nonfenestrated	1,282	3.2%	0.9%
PA, reconstruction (plasty), Branch, Central (w within the hilar bifurcation)	1,186	3.0%	0.5%
RVOT procedure	1,176	3.0%	0.2%
Transplant, Heart	1,157	2.9%	3.8%
Valvuloplasty, Mitral	1,101	2.8%	0.7%
Conduit placement, RV to PA	1,101	2.8%	0.5%
Pacemaker procedure	1,080	2.7%	0.2%
Aortic stenosis, Subvalvar, Repair	1,063	2.7%	0.2%
Valve replacement, Pulmonic (PVR)	917	2.3%	0.1%
Mediastinal exploration	844	2.1%	0.5%
Delayed sternal closure	811	2.0%	0.6%
Vascular ring repair	803	2.0%	0.0%
ASD repair, Primary closure	742	1.9%	0.0%
Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	684	1.7%	0.3%
Conduit reoperation	678	1.7%	0.1%
Valve replacement, Mitral (MVR)	663	1.7%	3.3%
ASD repair, Patch + PAPVC repair	587	1.5%	0.0%
Valvuloplasty, Aortic	585	1.5%	0.2%
Valvuloplasty, Tricuspid	575	1.5%	1.6%
Fontan, TCPC, Lateral tunnel, Fenestrated	527	1.3%	0.6%
AVC (AVSD) repair, Partial (Incomplete) (PAVSD)	449	1.1%	0.2%
Explantation of pacing system	404	1.0%	0.2%
Aortic arch repair	403	1.0%	1.5%
VSD repair, Primary closure	396	1.0%	0.3%
Coarctation repair, End to end, Extended	394	1.0%	0.5%
PA, reconstruction (plasty), Main (trunk)	372	0.9%	0.5%
PAPVC repair	345	0.9%	0.0%
Pericardial drainage procedure	336	0.8%	1.2%
Ross procedure	328	0.8%	0.3%
Aortic stenosis, Subvalvar, Repair, With myectomy for IHSS	312	0.8%	0.6%
Aortic stenosis, Supravalvar, Repair	298	0.8%	0.7%