



STS Congenital Heart Surgery Data Summary
Adults



STS Period Ending 06/30/2018

Table 1: Adults 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	2,545	10,017
Patients in Analysis ²	2,406	9,460
Operative Mortality³		
Number of Mortalities	28	114
Number Eligible	2,303	9,135
Mortality Percent	1.2%	1.2%
Mortality (95% CI)	(0.8 , 1.8)	(1.0 , 1.5)

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 Adults, Last 4 Years (Jul 2014 - Jun 2018)

Primary Diagnosis	STS	
	N	% of All
Pulmonary insufficiency	1,255	12.5%
Aortic insufficiency	518	5.2%
ASD, Secundum	451	4.5%
Arrhythmia, Pacemaker, Indication for replacement	444	4.4%
Aortic aneurysm (including pseudoaneurysm)	432	4.3%
Cardiac, Other	338	3.4%
Aortic stenosis, Valvar	321	3.2%
Mitral regurgitation	290	2.9%
Tricuspid regurgitation, non-Ebstein's related	289	2.9%
Aortic stenosis, Subvalvar	288	2.9%
Ebstein's anomaly	285	2.8%
Aortic insufficiency and aortic stenosis	254	2.5%
ASD, Sinus venosus	250	2.5%
Conduit failure	246	2.5%
Partial anomalous pulmonary venous connection (PAPVC)	226	2.3%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	187	1.9%
TOF	174	1.7%
Pulmonary insufficiency and pulmonary stenosis	157	1.6%
Endocarditis	153	1.5%
Cardiomyopathy (including dilated, restrictive, and hypertrophic)	148	1.5%
Aortic valve, Other	139	1.4%
Open sternum with open skin (includes membrane placed to close skin)	135	1.3%
AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum)	129	1.3%
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	116	1.2%
Pulmonary stenosis, Valvar	116	1.2%
Miscellaneous, Other	112	1.1%
Arrhythmia	102	1.0%
Arrhythmia, Heart block	83	0.8%
Single ventricle, Tricuspid atresia	82	0.8%
TOF, Pulmonary stenosis	82	0.8%
Pericardial effusion	81	0.8%
Prosthetic valve failure	81	0.8%
Mitral regurgitation and mitral stenosis	78	0.8%
DCRV	72	0.7%
Postoperative bleeding	68	0.7%



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Duke Clinical Research Institute

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

Primary Procedure	STS		
	N	% of All	% Mort.
Valve replacement, Pulmonic (PVR)	748	7.7%	0.3%
Pacemaker procedure	530	5.5%	0.2%
Valvuloplasty, Tricuspid	442	4.6%	0.7%
RVOT procedure	436	4.5%	0.7%
ASD repair, Patch	330	3.4%	0.6%
Valve replacement, Mitral (MVR)	315	3.3%	3.5%
Pacemaker implantation, Permanent	313	3.2%	1.6%
Aortic aneurysm repair	310	3.2%	0.3%
PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation)	261	2.7%	2.7%
Valve replacement, Aortic (AVR), Bioprosthetic	246	2.5%	0.4%
Arrhythmia surgery - atrial, Surgical Ablation	242	2.5%	0.4%
Valve replacement, Tricuspid (TVR)	238	2.5%	2.9%
Valve replacement, Aortic (AVR), Mechanical	234	2.4%	0.0%
Ebstein's repair	222	2.3%	1.8%
Conduit placement, RV to PA	217	2.2%	1.4%
Mediastinal exploration	217	2.2%	0.0%
Valvuloplasty, Mitral	206	2.1%	0.5%
Aortic root replacement, Valve sparing	194	2.0%	0.0%
Transplant, Heart	174	1.8%	6.3%
Coronary artery bypass	160	1.7%	1.3%
Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	159	1.6%	0.6%
Delayed sternal closure	157	1.6%	0.6%
PA, reconstruction (plasty), Main (trunk)	146	1.5%	0.7%
Conduit reoperation	136	1.4%	0.7%
Explantation of pacing system	134	1.4%	0.0%
ASD repair, Patch + PAPVC repair	131	1.4%	0.0%
Fontan revision or conversion (Re-do Fontan)	122	1.3%	9.0%
Aortic root replacement, Mechanical	121	1.3%	0.8%
Aortic stenosis, Subvalvar, Repair, With myectomy for IHSS	119	1.2%	0.0%
Aortic stenosis, Subvalvar, Repair	116	1.2%	0.0%
ICD (AICD) implantation	116	1.2%	0.9%
PAPVC repair	114	1.2%	0.0%
Valvuloplasty, Aortic	105	1.1%	0.0%
Aortic arch repair	96	1.0%	4.2%
Aortic root replacement, Bioprosthetic	95	1.0%	1.1%