



**STS Congenital Heart Surgery Data Summary
Adults**

STS Period Ending 12/31/2018



Table 1: Adults 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	2,790	10,324
Patients in Analysis ²	2,627	9,744
Operative Mortality³		
Number of Mortalities	32	129
Number Eligible	2,615	9,722
Mortality Percent	1.2%	1.3%
Mortality (95% CI)	(0.8 , 1.7)	(1.1 , 1.6)

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 (Jan 2015 - Dec 2018)

Primary Diagnosis	STS	
	N	% of All
Pulmonary insufficiency	1,207	11.7%
Aortic insufficiency	548	5.3%
ASD, Secundum	452	4.4%
Aortic aneurysm (including pseudoaneurysm)	449	4.3%
Arrhythmia, Pacemaker, Indication for replacement	421	4.1%
Aortic stenosis, Valvar	360	3.5%
Cardiac, Other	334	3.2%
Aortic stenosis, Subvalvar	316	3.1%
Mitral regurgitation	307	3.0%
Tricuspid regurgitation, non-Ebstein's related	299	2.9%
Aortic insufficiency and aortic stenosis	284	2.8%
Ebstein's anomaly	279	2.7%
Conduit failure	260	2.5%
ASD, Sinus venosus	258	2.5%
Partial anomalous pulmonary venous connection (PAPVC)	234	2.3%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	207	2.0%
Endocarditis	176	1.7%
TOF	165	1.6%
Pulmonary insufficiency and pulmonary stenosis	164	1.6%
Cardiomyopathy (including dilated, restrictive, and hypertrophic)	158	1.5%
Open sternum with open skin (includes membrane placed to close skin)	143	1.4%
AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum)	132	1.3%
Aortic valve, Other	131	1.3%
Pulmonary stenosis, Valvar	120	1.2%
Miscellaneous, Other	115	1.1%
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	111	1.1%
Arrhythmia	94	0.9%
Mitral regurgitation and mitral stenosis	87	0.8%
Prosthetic valve failure	87	0.8%
TOF, Pulmonary stenosis	86	0.8%
Arrhythmia, Heart block	85	0.8%
Single ventricle, Tricuspid atresia	82	0.8%
Pericardial effusion	77	0.7%
DCRV	69	0.7%
Partial anomalous pulmonary venous connection (PAPVC), scimitar	66	0.6%



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

Primary Procedure	STS		
	N	% of All	% Mort.
Valve replacement, Pulmonic (PVR)	756	7.3%	0.5%
Pacemaker procedure	542	5.3%	0.2%
Valvuloplasty, Tricuspid	464	4.5%	0.9%
RVOT procedure	458	4.4%	0.7%
ASD repair, Patch	352	3.4%	0.6%
Valve replacement, Mitral (MVR)	348	3.4%	3.2%
Aortic aneurysm repair	332	3.2%	0.3%
Pacemaker implantation, Permanent	323	3.1%	1.2%
PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation)	278	2.7%	2.5%
Valve replacement, Aortic (AVR), Bioprosthetic	265	2.6%	0.4%
Valve replacement, Aortic (AVR), Mechanical	262	2.5%	0.4%
Arrhythmia surgery - atrial, Surgical Ablation	245	2.4%	0.8%
Conduit placement, RV to PA	241	2.3%	1.7%
Valve replacement, Tricuspid (TVR)	237	2.3%	3.0%
Mediastinal exploration	227	2.2%	0.0%
Ebstein's repair	222	2.2%	1.4%
Valvuloplasty, Mitral	217	2.1%	0.9%
Aortic root replacement, Valve sparing	216	2.1%	0.5%
Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	187	1.8%	1.1%
Transplant, Heart	183	1.8%	6.0%
Coronary artery bypass	183	1.8%	1.1%
Delayed sternal closure	168	1.6%	0.6%
Conduit reoperation	161	1.6%	0.0%
Aortic stenosis, Subvalvar, Repair, With myectomy for IHSS	153	1.5%	1.3%
ASD repair, Patch + PAPVC repair	141	1.4%	0.0%
Aortic root replacement, Mechanical	137	1.3%	0.7%
Explantation of pacing system	134	1.3%	0.0%
PA, reconstruction (plasty), Main (trunk)	133	1.3%	0.8%
Aortic stenosis, Subvalvar, Repair	130	1.3%	0.0%
PAPVC repair	127	1.2%	0.0%
Fontan revision or conversion (Re-do Fontan)	127	1.2%	9.4%
Valvuloplasty, Aortic	124	1.2%	0.0%
ICD (AICD) implantation	118	1.1%	0.8%
Aortic arch repair	107	1.0%	2.8%
Aortic root replacement, Bioprosthetic	94	0.9%	1.1%