



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
<b>Number of Operations/Patients</b>		
Operations in Analysis <sup>1</sup>	2,762	10,284
Patients in Analysis <sup>2</sup>	2,601	9,707
<b>Operative Mortality<sup>3</sup></b>		
Number of Mortalities	33	127
Number Eligible	2,553	9,561
Mortality Percent	1.3%	1.3%
Mortality (95% CI)	(0.9 , 1.8)	(1.1 , 1.6)

<sup>1</sup>Analysis includes only operations classified as "CPB" or "No CPB, Cardiovascular"

<sup>2</sup>Patient Numbers represent distinct patient admissions

<sup>3</sup>Mortality 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	1,210	11.8%
Aortic insufficiency	550	5.3%
Aortic aneurysm (including pseudoaneurysm)	451	4.4%
ASD, Secundum	450	4.4%
Arrhythmia, Pacemaker, Indication for replacement	423	4.1%
Aortic stenosis, Valvar	359	3.5%
Cardiac, Other	345	3.4%
Aortic stenosis, Subvalvar	318	3.1%
Mitral regurgitation	304	3.0%
Tricuspid regurgitation, non-Ebstein's related	296	2.9%
Aortic insufficiency and aortic stenosis	284	2.8%
Ebstein's anomaly	279	2.7%
ASD, Sinus venosus	259	2.5%
Conduit failure	258	2.5%
Partial anomalous pulmonary venous connection (PAPVC)	233	2.3%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	207	2.0%
Endocarditis	178	1.7%
TOF	164	1.6%
Pulmonary insufficiency and pulmonary stenosis	162	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)	133	1.3%
Aortic valve, Other	131	1.3%
Pulmonary stenosis, Valvar	121	1.2%
Miscellaneous, Other	114	1.1%
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	108	1.1%
Arrhythmia	93	0.9%
Mitral regurgitation and mitral stenosis	87	0.8%
TOF, Pulmonary stenosis	87	0.8%
Prosthetic valve failure	86	0.8%
Arrhythmia, Heart block	85	0.8%
Single ventricle, Tricuspid atresia	82	0.8%
Pericardial effusion	77	0.7%
DCRV	68	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)	749	7.4%	0.5%
Pacemaker procedure	539	5.3%	0.2%
Valvuloplasty, Tricuspid	454	4.5%	0.9%
RVOT procedure	448	4.4%	0.7%
Valve replacement, Mitral (MVR)	337	3.3%	3.9%
ASD repair, Patch	336	3.3%	0.6%
Aortic aneurysm repair	323	3.2%	0.3%
Pacemaker implantation, Permanent	318	3.1%	1.3%
PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation)	275	2.7%	2.5%
Valve replacement, Aortic (AVR), Mechanical	259	2.6%	0.4%
Valve replacement, Aortic (AVR), Bioprosthetic	255	2.5%	0.4%
Arrhythmia surgery - atrial, Surgical Ablation	241	2.4%	1.2%
Conduit placement, RV to PA	240	2.4%	1.7%
Valve replacement, Tricuspid (TVR)	232	2.3%	2.6%
Mediastinal exploration	227	2.2%	0.0%
Ebstein's repair	221	2.2%	1.4%
Aortic root replacement, Valve sparing	217	2.1%	0.5%
Valvuloplasty, Mitral	215	2.1%	0.5%
Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	185	1.8%	0.5%
Transplant, Heart	180	1.8%	6.1%
Coronary artery bypass	172	1.7%	1.2%
Delayed sternal closure	166	1.6%	0.6%
Conduit reoperation	161	1.6%	0.0%
Aortic stenosis, Subvalvar, Repair, With myectomy for IHSS	149	1.5%	0.7%
ASD repair, Patch + PAPVC repair	138	1.4%	0.0%
Aortic root replacement, Mechanical	135	1.3%	0.7%
PA, reconstruction (plasty), Main (trunk)	132	1.3%	0.8%
Explantation of pacing system	132	1.3%	0.0%
Aortic stenosis, Subvalvar, Repair	128	1.3%	0.0%
Fontan revision or conversion (Re-do Fontan)	127	1.3%	9.4%
PAPVC repair	127	1.3%	0.0%
Valvuloplasty, Aortic	122	1.2%	0.0%
ICD (AICD) implantation	118	1.2%	0.8%
Aortic arch repair	104	1.0%	2.9%
Aortic root replacement, Bioprosthetic	94	0.9%	1.1%