



**STS Congenital Heart Surgery Data Summary  
Adults**

**STS Period Ending 12/31/2016**

**Table 1: Adults number submitted, in analysis, and operative mortality**

	STS	
	Last 1 Year Jan 2016 - Dec 2016	Last Four Years Jan 2013 - Dec 2016
<b>Number of Operations/Patients</b>		
Operations in Analysis <sup>1</sup>	2,637	9,894
Patients in Analysis <sup>2</sup>	2,495	9,285
<b>Operative Mortality<sup>3</sup></b>		
Number of Mortalities	33	139
Number Eligible	2,479	9,210
Mortality Percent	1.3%	1.5%
Mortality (95% CI)	(0.9 , 1.9)	(1.3 , 1.8)

<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



**STS Congenital Heart Surgery Data Summary  
Adults**

**Duke Clinical Research Institute**

**STS Period Ending 12/31/2016**

**Table 2: Primary diagnosis, 35 Most Frequent for Adults, Last 4 Years (Jan 2013 - Dec 2016)**

Primary Diagnosis	STS	
	N	% of All
Pulmonary insufficiency	1,287	13.0%
Aortic insufficiency	505	5.1%
ASD, Secundum	462	4.7%
Arrhythmia, Pacemaker, Indication for replacement	450	4.5%
Cardiac, Other	383	3.9%
Aortic aneurysm (including pseudoaneurysm)	382	3.9%
Aortic stenosis, Valvar	301	3.0%
Ebstein's anomaly	282	2.9%
Tricuspid regurgitation, non-Ebstein's related	270	2.7%
Aortic stenosis, Subvalvar	253	2.6%
Conduit failure	241	2.4%
Mitral regurgitation	233	2.4%
ASD, Sinus venosus	230	2.3%
Aortic insufficiency and aortic stenosis	216	2.2%
Partial anomalous pulmonary venous connection (PAPVC)	199	2.0%
TOF	180	1.8%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	178	1.8%
Aortic valve, Other	172	1.7%
TOF, Pulmonary stenosis	156	1.6%
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	145	1.5%
Cardiomyopathy (including dilated, restrictive, and hypertrophic)	145	1.5%
Pulmonary insufficiency and pulmonary stenosis	132	1.3%
AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum)	129	1.3%
Pulmonary stenosis, Valvar	129	1.3%
Arrhythmia	120	1.2%
Miscellaneous, Other	120	1.2%
Endocarditis	116	1.2%
Arrhythmia, Atrial	115	1.2%
Open sternum with open skin (includes membrane placed to close skin)	97	1.0%
Single ventricle, Tricuspid atresia	80	0.8%
DCRV	76	0.8%
Arrhythmia, Heart block	76	0.8%
Postoperative bleeding	76	0.8%
Pericardial effusion	74	0.7%
Arrhythmia, Heart block, Acquired	73	0.7%



STS Congenital Heart Surgery Data Summary  
Adults

STS Period Ending 12/31/2016

**Table 3: Primary procedure, 35 Most Frequent for Adults, Last 4 Years (Jan 2013 - Dec 2016)**

Primary Procedure	STS		
	N	% of All	% Mort.
Valve replacement, Pulmonic (PVR)	791	8.1%	0.1%
Pacemaker procedure	597	6.1%	0.0%
RVOT procedure	499	5.1%	0.4%
Valvuloplasty, Tricuspid	416	4.2%	0.5%
ASD repair, Patch	344	3.5%	0.6%
Aortic aneurysm repair	332	3.4%	1.2%
Pacemaker implantation, Permanent	311	3.2%	1.6%
Valve replacement, Mitral (MVR)	300	3.1%	3.0%
Valve replacement, Tricuspid (TVR)	267	2.7%	2.6%
Valve replacement, Aortic (AVR), Bioprosthetic	257	2.6%	0.8%
Arrhythmia surgery - atrial, Surgical Ablation	257	2.6%	0.4%
Conduit placement, RV to PA	240	2.4%	2.9%
PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation)	237	2.4%	2.1%
Mediastinal exploration	237	2.4%	2.1%
Valve replacement, Aortic (AVR), Mechanical	203	2.1%	0.5%
Transplant, Heart	198	2.0%	6.1%
Valvuloplasty, Mitral	193	2.0%	1.6%
Ebstein's repair	193	2.0%	2.6%
Delayed sternal closure	184	1.9%	1.1%
Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	160	1.6%	0.0%
Aortic root replacement, Valve sparing	153	1.6%	0.0%
PA, reconstruction (plasty), Main (trunk)	145	1.5%	1.4%
ICD (AICD) implantation	139	1.4%	1.4%
Coronary artery bypass	133	1.4%	0.0%
Fontan revision or conversion (Re-do Fontan)	128	1.3%	7.8%
ASD repair, Patch + PAPVC repair	125	1.3%	0.8%
Explantation of pacing system	124	1.3%	0.8%
Conduit reoperation	123	1.3%	0.8%
Aortic stenosis, Subvalvar, Repair	123	1.3%	0.0%
Aortic root replacement, Mechanical	120	1.2%	4.2%
VSD repair, Patch	106	1.1%	0.0%
PAPVC repair	99	1.0%	0.0%
Valvuloplasty, Aortic	98	1.0%	0.0%
ASD repair, Primary closure	95	1.0%	1.1%
Aortic root replacement, Bioprosthetic	88	0.9%	0.0%