



**STS Congenital Heart Surgery Data Summary
Infants**

STS Period Ending 12/31/2018



Table 1: Infants 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 | 10,378 | 41,409 |
| Patients in Analysis ² | 8,209 | 33,175 |
| Operative Mortality³ | | |
| Number of Mortalities | 190 | 846 |
| Number Eligible | 7,793 | 31,330 |
| Mortality Percent | 2.4% | 2.7% |
| Mortality (95% CI) | (2.1 , 2.8) | (2.5 , 2.9) |

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 Infants, Last 4 Years (Jan 2015 - Dec 2018)

| Primary Diagnosis | STS | |
|---|-------|----------|
| | N | % of All |
| VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular) | 5,421 | 13.1% |
| TOF, Pulmonary stenosis | 3,829 | 9.2% |
| AVC (AVSD), Complete (CAVSD) | 3,492 | 8.4% |
| Patent ductus arteriosus | 2,617 | 6.3% |
| Open sternum with open skin (includes membrane placed to close skin) | 2,308 | 5.6% |
| Hypoplastic left heart syndrome (HLHS) | 2,263 | 5.5% |
| Coarctation of aorta | 1,187 | 2.9% |
| Vascular ring | 834 | 2.0% |
| Single ventricle, Tricuspid atresia | 825 | 2.0% |
| Cardiac, Other | 747 | 1.8% |
| Pulmonary atresia, VSD (Including TOF, PA) | 653 | 1.6% |
| DORV, TOF type | 591 | 1.4% |
| TOF | 569 | 1.4% |
| Single ventricle, DILV | 556 | 1.3% |
| Miscellaneous, Other | 550 | 1.3% |
| Pulmonary atresia, IVS | 533 | 1.3% |
| VSD, Multiple | 469 | 1.1% |
| Pulmonary atresia, VSD-MAPCA | 452 | 1.1% |
| ASD, Secundum | 421 | 1.0% |
| DORV, VSD type | 410 | 1.0% |
| Single ventricle, Heterotaxia syndrome | 395 | 1.0% |
| VSD, Type 4 (Muscular) | 359 | 0.9% |
| VSD, Type 1 (Subarterial) (Supracristal) (Conal septal defect) (Infundibular) | 354 | 0.9% |
| Single ventricle, Unbalanced AV canal | 352 | 0.9% |
| DORV, TGA type | 352 | 0.9% |
| VSD, Type 3 (Inlet) (AV canal type) | 336 | 0.8% |
| AVC (AVSD), Intermediate (transitional) | 331 | 0.8% |
| Mitral regurgitation | 316 | 0.8% |
| Aortic arch hypoplasia | 311 | 0.8% |
| TOF, AVC (AVSD) | 286 | 0.7% |
| Pulmonary artery stenosis, Branch, Central (within the hilar bifurcation) | 282 | 0.7% |
| Pulmonary stenosis, Valvar | 275 | 0.7% |
| Arrhythmia, Heart block, Acquired | 271 | 0.7% |
| Pericardial effusion | 257 | 0.6% |
| Coronary artery anomaly, Anomalous pulmonary origin (includes ALCAPA) | 250 | 0.6% |



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

| Primary Procedure | STS | | |
|---|-------|----------|---------|
| | N | % of All | % Mort. |
| VSD repair, Patch | 5,428 | 13.8% | 0.6% |
| AVC (AVSD) repair, Complete (CAVSD) | 3,080 | 7.8% | 2.0% |
| Delayed sternal closure | 3,014 | 7.6% | 0.1% |
| Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn) | 2,424 | 6.1% | 1.7% |
| TOF repair, Ventriculotomy, Transannular patch | 1,995 | 5.1% | 1.6% |
| Mediastinal exploration | 1,402 | 3.6% | 0.4% |
| Superior Cavopulmonary anastomosis(es) + PA reconstruction | 1,249 | 3.2% | 1.8% |
| TOF repair, Ventriculotomy, Nontransannular patch | 1,212 | 3.1% | 0.7% |
| PA banding (PAB) | 1,041 | 2.6% | 6.2% |
| TOF repair, No ventriculotomy | 1,008 | 2.6% | 0.5% |
| PDA closure, Surgical | 901 | 2.3% | 4.4% |
| Vascular ring repair | 740 | 1.9% | 0.1% |
| Coarctation repair, End to end, Extended | 732 | 1.9% | 0.8% |
| Pacemaker implantation, Permanent | 696 | 1.8% | 1.3% |
| RVOT procedure | 670 | 1.7% | 1.3% |
| Aortic arch repair | 644 | 1.6% | 3.0% |
| DORV, Intraventricular tunnel repair | 586 | 1.5% | 3.4% |
| Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS) | 550 | 1.4% | 7.3% |
| PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation) | 495 | 1.3% | 2.4% |
| Valvuloplasty, Mitral | 469 | 1.2% | 2.3% |
| Transplant, Heart | 467 | 1.2% | 2.4% |
| TAPVC repair | 377 | 1.0% | 3.4% |
| Shunt, Systemic to pulmonary, Central (shunt from aorta) | 359 | 0.9% | 8.6% |
| Pulmonary venous stenosis repair | 353 | 0.9% | 7.6% |
| Bilateral bidirectional cavopulmonary anastomosis (BBDCPA) (bilateral bidirectional Glenn) | 339 | 0.9% | 2.7% |
| Valvuloplasty, Pulmonic | 306 | 0.8% | 2.3% |
| Coarctation repair, End to end | 274 | 0.7% | 1.1% |
| VSD repair, Primary closure | 262 | 0.7% | 0.8% |
| Norwood procedure | 254 | 0.6% | 6.7% |
| AVC (AVSD) repair, Intermediate (Transitional) | 236 | 0.6% | 0.8% |
| TOF repair, RV-PA conduit | 235 | 0.6% | 2.1% |
| Damus-Kaye-Stansel procedure (DKS) (creation of AP anastomosis without arch reconstruction) | 227 | 0.6% | 4.4% |
| HemiFontan | 226 | 0.6% | 0.9% |
| Conduit placement, RV to PA | 225 | 0.6% | 4.0% |
| TOF - AVC (AVSD) repair | 220 | 0.6% | 6.8% |