

# STS Congenital Heart Surgery Data Summary

## July 2005 - June 2009 Procedures

### Neonates (0 - 30 days)

Table 1: Number of patients/operations submitted and in analysis, discharge mortality, and complexity information, by year

Year	Operations Submitted	Operations in Analysis	Patients in Analysis	Discharge Mortality		Aristotle Mean Basic	
				# / Eligible	% of patients	Complexity Score	Complexity Level
Jul 05 - Jun 06	5,552	4,729	3,803	321 / 2,811	11.4%	8.9	2.9
Jul 06 - Jun 07	6,675	5,801	4,502	368 / 3,336	11.0%	9.2	3.0
Jul 07 - Jun 08	7,233	6,223	4,669	370 / 3,529	10.5%	9.2	3.0
Jul 08 - Jun 09	6,257	5,397	4,057	309 / 3,056	10.1%	9.1	3.0
Total	25,717	22,150	17,031	1,368 / 12,732	10.7%	9.1	3.0

Note: Analysis includes only operations classified as "CPB" or "No CPB, Cardiovascular". Patient numbers represent distinct patient admissions. Mortality numbers are patient-based only for admissions in the analysis population at sites with adequate mortality data.

Table 2: Primary diagnosis (N = 22,150), 25 Most Frequent

Diagnosis	Incidence	
	#	% of all
Patent ductus arteriosus	4,255	19.2
Hypoplastic left heart syndrome (HLHS)	2,688	12.1
Cardiac, Other	1,988	9.0
Coarctation of aorta	1,517	6.8
TGA, IVS	1,379	6.2
TGA, VSD	735	3.3
Miscellaneous, Other	626	2.8
[Missing diagnosis]	534	2.4
Pulmonary atresia, VSD (Including TOF, PA)	521	2.4
Truncus arteriosus	495	2.2
Interrupted aortic arch	467	2.1
Aortic arch hypoplasia	435	2.0
TOF	428	1.9
Pulmonary atresia, IVS	412	1.9
VSD + Coarctation of aorta	336	1.5
Single ventricle, Tricuspid atresia	330	1.5
Total anomalous pulmonary venous connection (TAPVC), Type 1 (Supracardiac)	322	1.5
Total anomalous pulmonary venous connection (TAPVC), Type 3 (Infracardiac)	281	1.3
Single ventricle, DILV	256	1.2



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Diagnosis	Incidence	
	#	% of all
DORV, TGA type	244	1.1
AVC (AVSD), Complete CAVSD	196	0.9
Single ventricle, Heterotaxia syndrome	188	0.8
VSD + Aortic arch hypoplasia	164	0.7
Single ventricle, Unbalanced AV canal	156	0.7
Arrhythmia, Heart block, Congenital	146	0.7

Table 3: Primary procedure based on Aristotle Basic Complexity Score (N = 22,150), 25 Most Frequent

Procedure	Incidence		Discharge Mortality		Basic Complexity Score	Basic Complexity Level
	#	% of all	# / Eligible	%		
PDA closure, Surgical	4,433	20.0	16 / 293	5.5%	3.0	1
Delayed sternal closure	2,509	11.3	1 / 2,501	0.0%	1.5	1
Norwood procedure	2,267	10.2	429 / 2,240	19.2%	14.5	4
Shunt, Systemic to pulmonary, Modified Blalock-Taussig shunt (MBTS)	1,422	6.4	100 / 1,409	7.1%	6.3	2
Arterial switch operation (ASO)	1,390	6.3	36 / 1,381	2.6%	10.0	4
Coarctation repair, End to end, Extended	1,137	5.1	30 / 1,121	2.7%	8.0	3
Mediastinal exploration	1,071	4.8	9 / 1,067	0.8%	1.5	1
TAPVC repair	750	3.4	116 / 742	15.6%	9.0	3
PA banding (PAB)	610	2.8	91 / 597	15.2%	6.0	2
Aortic arch repair	541	2.4	35 / 536	6.5%	7.0	2
Coarctation repair, End to end	487	2.2	5 / 483	1.0%	6.0	2
Arterial switch operation (ASO) and VSD repair	460	2.1	26 / 455	5.7%	11.0	4
Interrupted aortic arch repair	384	1.7	33 / 370	8.9%	10.8	4
Truncus arteriosus repair	349	1.6	50 / 345	14.5%	11.0	4
Shunt, Systemic to pulmonary, Central (From aorta or to main pulmonary artery)	304	1.4	25 / 299	8.4%	6.8	2
Sternotomy wound drainage	239	1.1	0 / 238	0.0%	1.5	1
ECMO procedure	231	1.0	16 / 231	6.9%	6.0	2
Pacemaker implantation, Permanent	194	0.9	14 / 192	7.3%	3.0	1
PA, Reconstruction (plasty), Branch, Central (within the hilar bifurcation)	190	0.9	18 / 189	9.5%	7.8	2
TOF repair, Ventriculotomy, Transanular patch	183	0.8	10 / 174	5.7%	8.0	3
VSD repair, Patch	163	0.7	5 / 160	3.1%	6.0	2
Other procedure	146	0.7	7 / 143	4.9%		
RVOT procedure	136	0.6	17 / 133	12.8%	6.5	2
Conduit placement, RV to PA	112	0.5	14 / 111	12.6%	7.5	2
Arterial switch procedure and VSD repair + Aortic arch repair	105	0.5	11 / 105	10.5%	13.0	4