STS National Database™

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The Society of Thoracic Surgeons

Congenital Heart Surgery Database

November 18, 2025

Agenda

- Welcome and Introduction
- STS Update
- STS Data Manager Education (Chasity Wellnitz and Leslie Wacker, CHSD Consultants)
- Q&A

STS Updates

- November Training Manual to be posted by COB 11/18

- Fall 2025 Harvest (Includes Surgery dates July 1, 2021 – June 30, 2025)
  - Harvest analysis is in final review
  - Plan to release results within the next two weeks

- 2026 Harvest Dates have been posted

STS Updates

2026 Harvest

Term	Harvest Submission Window Close	Opt-Out Date	Includes Procedures Performed Through:	Report Posting	Comments
Spring	March 27	March 31	December 31, 2025	Summer 2026	
Fall	October 9	October 13	June 30, 2026	Winter 2026	

Analysis for each harvest is based on a 48-month window.

Data Submission Open is continuous for all harvest terms. Data Submission Close occurs at 11:59 p.m. Eastern on the date listed.


Thank you!

Education Discussion Topics

- DCF vs software application
- *New* Table 17 overview
- FAQ Clarifications

STS Data Collection Form vs. Vendor Software

CHSD Data Collection Form

- Divided into sections (A – U)
  - Allows for organized/efficient data collection
- Collapsed upon analysis into two tables:
  - Patient level
  - Operation level

CHSD Data Collection Form

Patient Level

- Demographics
- Birth information
- NCAA
- Chromosomal abnormalities
- Syndromes
- Fundamental diagnosis

Operation Level

- Administrative
- Hospitalization
- Preoperative factors
- Preoperative labs/Testing
- Diagnoses / s/p diagnoses
- Procedures / PSF / ECMO
- Operative / Valve / Aorta
- Postoperative / Postop Events
- Discharge/Readmission
- Longitudinal follow up
- Patient process measures

CHSD Data Collection Form

Patient Level

- De
- Bir
- NC
- Ch
- Syr
- Fundamental diagnosis

Remains with patient throughout lifetime (entire hospitalization) ➔ complete 1 time

Operation Level

- A
- H
- P
- P
- D
- P
- C
- Postoperative / Postop Events
- Discharge/Readmission
- Longitudinal follow up
- Patient process measures

Specific to 1 operation only ➔ complete for every operation

Vendor Software

- Organized per their design
  - May allow for customized views / display of fields
  - Some force data entry once for discharge & readmission fields
- Unless otherwise specified, all operation level fields are to be completed for every operation – *including Mortality Status at 30-days and Operative Mortality*
- Submission should meet STS requirements

Table 17 - Overview

Table 17

- Risk adjusted major morbidity (any or none, not scored)
- Same structure as Table 16
  - Inclusion/exclusion criteria
  - Excludes mortalities
  - Stratified by age and STAT score
- V3.41 – using “major complications”
- V6.23 – updates for specific child fields

The Society of Thoracic Surgeons

Participant: 50150
STS Period Ending Dec 2024

See Details

Participant Morbidity Analysis, Last 4 Years (Table 17)

Data in this table are for the four year analytic window of 01/01/2021 to 12/31/2024, inclusive.

	STAT Category	# Observed	# Eligible	% Observed	% Expected	Observed/Expected (95% CI)	AMR (95% CI)	STS
Neonates+ Infants+ Children+ Adults	All STAT Mortality Categories	27*	1142*	2.36%	2.68%	0.88 (0.58, 1.19)	2.35 (1.56, 3.17)	2.66%
	STAT Mortality Category 1	1*	542*	0.18%	0.58%	0.32 (0.01, 1.76)	0.19 (0, 1.04)	0.59%
	STAT Mortality Category 2	8*	289*	2.77%	1.83%	1.51 (0.66, 2.94)	3.04 (1.32, 5.91)	2.01%
	STAT Mortality Category 3	3*	112*	2.68%	3.37%	0.80 (0.17, 2.26)	2.64 (0.55, 7.51)	3.32%
	STAT Mortality Category 4	8*	134*	5.97%	6.41%	0.93 (0.41, 1.78)	6.92 (3.03, 13.25)	7.44%
	STAT Mortality Category 5	7*	65*	10.77%	15.16%	0.71 (0.29, 1.38)	10.89 (4.49, 21.18)	15.34%
Neonates+ Infants+ Children	All STAT Mortality Categories	27*	1043*	2.59%	2.82%	0.92 (0.61, 1.33)	2.58 (1.71, 3.73)	2.81%
	STAT Mortality Category 1	1*	487*	0.21%	0.57%	0.36 (0.01, 2)	0.20 (0.01, 1.13)	0.56%
	STAT Mortality Category 2	8*	257*	3.11%	1.87%	1.66 (0.72, 3.22)	3.32 (1.45, 6.45)	2%
	STAT Mortality Category 3	3*	102*	2.94%	3.47%	0.85 (0.18, 2.41)	2.80 (0.58, 7.95)	3.30%
	STAT Mortality Category 4	8*	132*	6.06%	6.38%	0.95 (0.42, 1.82)	7.23 (3.17, 13.84)	7.61%
	STAT Mortality Category 5	7*	65*	10.77%	15.16%	0.71 (0.29, 1.38)	10.88 (4.49, 21.16)	15.32%
Neonates+ Infants	All STAT Mortality Categories	26*	600*	4.33%	4.38%	0.99 (0.65, 1.44)	4.19 (2.75, 6.07)	4.23%
	STAT Mortality Category 1	1*	204*	0.49%	0.81%	0.61 (0.02, 3.34)	0.50 (0.01, 2.75)	0.83%
	STAT Mortality Category 2	7*	152*	4.61%	2.59%	1.78 (0.72, 3.57)	4.48 (1.82, 9.01)	2.52%
	STAT Mortality Category 3	3*	62*	4.84%	4.55%	1.06 (0.22, 2.96)	4.16 (0.87, 11.59)	3.91%
	STAT Mortality Category 4	8*	117*	6.84%	6.84%	1 (0.44, 1.91)	8.17 (3.58, 15.57)	8.17%
	STAT Mortality Category 5	7*	65*	10.77%	15.16%	0.71 (0.29, 1.38)	11.20 (4.62, 21.77)	15.76%
Neonates	All STAT Mortality Categories	10*	228*	4.39%	7.22%	0.61 (0.29, 1.10)	4.41 (2.13, 7.95)	7.25%

Table 17

Morbidity	3.41	6.23
Renal Failure req dialysis	(230) (223) (224)	(570) Acute Renal Failure (1) Req dialysis at the time of EOC d/c (2) Temp dialysis without dialysis at EOC d/c (3) Temp hemofiltration without dialysis at EOC d/c
Neurologic Deficit at discharge	(320) (400) (410)	(590) Neurological deficit (4802) Neurologic deficit present at d/c = yes (1)
Arrhythmia requiring PPM	(74)	(74) Arrhythmia necessitating pacemaker
Paralyzed diaphragm	(300)	*Not included (see below)
Mechanical circulatory support	(40)	(40) Postoperative/Postprocedural mechanical circulatory support
Cardiac arrest		(30) Unexpected cardiac arrest, Timing = Cardiac arrest (MI) during or following procedure
Unplanned cardiac reoperation	(22) (240)	(22) Unplanned cardiac reoperation during the postoperative or postprocedural time period (1) Residual or recurrent lesion (2) Reoperation for bleeding or suspected bleeding

Table 17

Morbidity	3.41	6.23
Non-cardiac reoperation	(26)	(26) Non-cardiac reoperation during the postoperative or postprocedural time period (1) Diaphragm plication (2) Thoracic duct ligation (3) Bowel resection (6) Tracheostomy (8) Vascular surgery to repair fistula, pseduoaneurysms, or vessel disruptions
Unplanned interventional cardiovascular catheterization	(24)	(24) Unplanned interventional cardiovascular catheterization procedure during the postoperative or postprocedural time period (1) Balloon dilation without stenting (2) Balloon dilation with stenting (3) Intracardiac or intravascular device placement(other than stent) (7) IR Lymphatic vessel occlusion

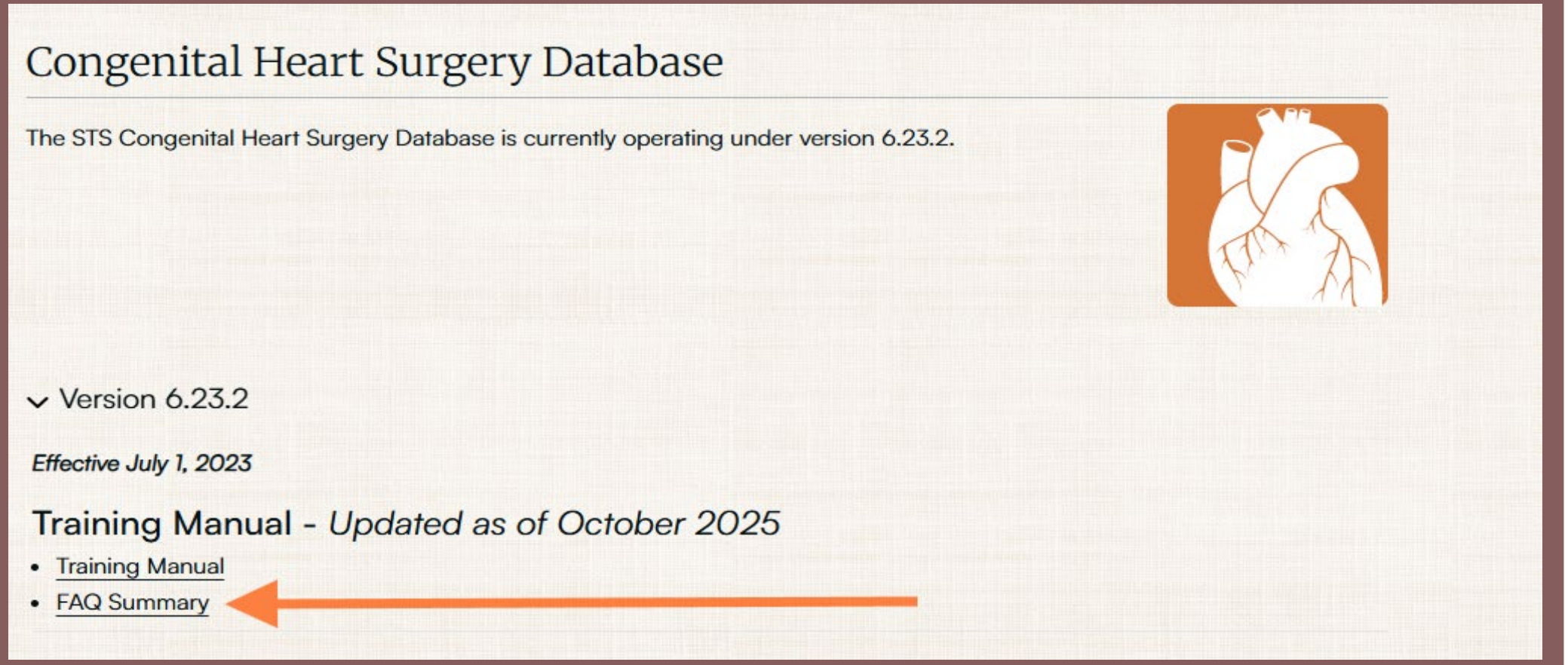
Table 17 – in summary

- Risk adjusted major morbidity (any or none, not scored)
- Details will be published in Analysis Overview, once ready
- This is a trial/pilot period, expect changes
- There is no intention to publicize this in its current format

FAQ Clarifications

FAQ Clarifications – Oct/Nov

- October has 10+ clarifications, please utilize the **FAQ Summary** document



FAQ Clarifications – Oct/Nov

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- November TM…

Open Discussion

Please use the Q&A Function.

We will answer as many questions as possible.

We encourage your feedback and want to hear from you!

Upcoming CHSD Webinars

Monthly Webinars

- 12/16/25 @ 12pmCT
- 1/20/26 @ 12pmCT

Contact Information

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THANK YOU FOR JOINING!