



# **STS National Database**<sup>TM</sup>

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**Society of Thoracic Surgeons**

**Congenital Heart Surgery Database  
Monthly Webinar**

**January 18, 2022**

# CHSD Monthly Webinar

- Welcome and Introductions
- STS Update
- STS Education (Chasity Wellnitz, CHSD Consultant)
- IQVIA Update
- User Feedback
  - Include Ticket Number/Case Number



# STS Updates

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- January Training Manual to be posted this week
- 2021 Harvest Update
  - Harvest closed on **THURSDAY, December 23 @ 11:59pm ET**
  - Data to DCRI for analysis
- Covid Update
  - 12/28/2021 - Official STS communication sent to all Database Participants
  - Any Covid positive patient will continue to be excluded from current analyses (2021 and Spring 2022)
    - Impacts 0.19% of all patients in CHSD
  - Analysis exclusions will cease for any record with a surgery date of January 1, 2022 forward
  - Continue to collect Covid variables until further notice



# STS Updates

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## CHSD 2022 Harvest Schedule

CHSD					
Harvest	Close	Opt-Out	Includes procedures performed through	Report Posting	Comments
Spring 2022	March 11	March 15	December 31, 2021	Summer 2022	
Fall 2022	September 16	September 20	June 30, 2022	Winter 2022	



# STS Updates



- **6.22 Data Version Upgrade**
  - Data spec build is in final stages
  - Specs to vendors coming soon (end of January)
  - Upgrade webinars will begin in February
    - DCF walk-through
    - Opportunity for questions
- **2021 and 2022 Analysis Updates**
  - Official communication to be sent CHSD Community
  - 2021 - Implementation of 3.41 'more granular codes'
  - 2021 – 3 additional Rules/exceptions to be implemented
  - Spring 2022 - Updated STAT Scores to be implemented
    - **Will be applied to entire 4-year analytic period**
    - **This includes OR dates 1/1/2018 - 12/31/2021**

(3460) Coarctation repair, Descending aorta anastomosed to Ascending aorta	(3470) Coarctation repair, Extra-anatomic Bypass graft
(3450) DORV - AVC (AVSD) repair	(3410) DORV repair, No Ventriculotomy
(3440) DORV repair, RV-PA conduit	(3420) DORV repair, Ventriculotomy, Nontransannular patch
(3430) DORV repair, Ventriculotomy, Transannular patch	(3330) TOF repair, Ventriculotomy, Transannular patch, plus native valve reconstruction
(3340) TOF repair, Ventriculotomy, Transannular patch, with monocusp or other surgically fashioned RVOT valve	(3380) Extended Ventricular Septoplasty (modified Konno, VSD creation and patch enlargement of LVOT, sparing aortic valve) for tunnel type sub aortic stenosis
(3390) LV Endocardial Fibroelastosis resection	(3360) PA, reconstruction (plasty), Branch, Peripheral (at or beyond the first lobar branch, beyond the first segmental branch)
(3350) PA, reconstruction (plasty), Branch, Peripheral (at or beyond the first lobar branch, proximal to first segmental branch)	(3370) RV Rehabilitation, Endocardial Resection
(3400) Double root translocation	





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Chasity Wellnitz

CHSD Consultant/Core Group

Phoenix Children's Hospital

# Webinar Discussion Topics

- Definition clarifications
  - Chylothorax
  - Mechanical ventilation to treat cardiorespiratory failure
  - Location from which patient admitted
- New Primary Procedure Determination Rules



# *Definition Clarifications*



## *Complication:* **Chylothorax**

### ***Current Definition:***

Presence of lymphatic fluid in the pleural space, commonly secondary to leakage from the thoracic duct or one of its main tributaries. Thoracocentesis is the gold standard for diagnosis and generally reveals a predominance of lymphocytes and/or a triglyceride level greater than 110 mg/dL. In addition to biochemical confirmation should also requires placement of a new chest tube, or high outputs >10 ml/kg/day for > 48 hours necessitating one or more of the following: chest tube to stay longer than 7 days, change in enteral diet to fat free diet for longer than 7 days, NPO and PN/IL for longer than 7 days, medications such as octreotide, Albumin or IVIG transfusions at any time, surgery for chyle leak.

# Chylothorax Clarified

Presence of lymphatic fluid in the pleural space, commonly secondary to leakage from the thoracic duct or one of its main tributaries.

Thoracentesis is the gold standard for diagnosis.

## ***Code this complication if there is:***

- Biochemical evidence with a predominance of lymphocytes and/or triglyceride level greater than 110mg/dl

### ***And:***

- Placement of a new chest tube or high outputs >10ml/kg/day for >48 hours from an existing chest tube

### ***And 1 or more of the following:***

- Chest tube to stay >7 days, change in enteral diet to fat free diet >7 days, NPO and PN/IL for >7 days, medications such as octreotide, albumin or IVIG infusions at any time, and surgery for chyle leak

### Scenario:

Patient experiences a pleural effusion, & a chest tube is placed. Labs reveal triglyceride level 200mg/dl. A low-fat diet was instituted for 24-hours before return to normal diet. Physicians document a chylous effusion.

## *Chylothorax: To Code or Not to Code...*

### Criteria:

1. Biochemical analysis – **Yes**
2. New CT or high output from an existing CT – **Yes**
3. Definitional treatments – **No**

***Patient does not meet criteria to code complication chylothorax***

## Additional Chylothorax Coding Tip...

If a pleural effusion is drained and meets the definition for chylothorax,

***also code***

complication (200) Pleural effusion, requiring drainage

*Preoperative  
Factor:*  
  
Mechanical  
ventilation to  
treat cardio-  
respiratory  
failure

***Definition:***

This patient was supported with mechanical ventilation to treat cardio-respiratory failure during the hospitalization of this operation and prior to OR Entry Date and Time.

Pre-operative non-invasive ventilation should NOT be coded as pre-operative mechanical ventilation.

The intent of the field is to capture patients on support with a *mechanical ventilator for cardiorespiratory failure* via intubation or tracheostomy.

## Scenario:

Patient intubated upon arrival to the CICU following a cardiac arrest in the ED. After 7 days, the patient is extubated to CPAP. The patient goes to the OR for ALCAPA repair.

## *Preop Factor: To Code or Not to Code...*

Mechanical ventilation to treat cardiorespiratory failure: **Yes**

- Required MV for respiratory failure
- Occurred during this hospital admission prior to surgery
- Also code Non-Invasive respiratory support to treat cardiorespiratory failure



## Scenario:

Patient intubated at an OSH for airway protection prior to transfer. The patient extubated upon arrival to the surgical hospital.

*Preop Factor: To Code or Not to Code...*

Mechanical ventilation to treat cardiorespiratory failure: **No**

- The patient did not experience respiratory failure

## Scenario:

Patient returned from the cath lab and remained intubated until their surgical procedure the following morning.

## *Preop Factor: To Code or Not to Code...*

Mechanical ventilation to treat cardiorespiratory failure: **No**

- The patient did not require mechanical ventilation for respiratory failure
- Do not code for elective periods of mechanical ventilation

## Scenario:

Following cardiac repair, patient remains intubated until after the sternal closure. Does this meet the criteria for preop mechanical ventilation to treat cardiorespiratory failure for the delayed sternal closure procedure?

## *Preop Factor: To Code or Not to Code...*

Mechanical ventilation to treat cardiorespiratory failure: **Yes**

- A patient with an open sternum is incapable of taking a spontaneous breath due to the inability to create negative intrathoracic pressure.
- Required MV for respiratory failure
- Occurred prior to the surgery

*Hospitalization:*  
Location From  
Which Patient  
Admitted

***Definition:***

Indicate the location from which the patient was admitted

1. Home
2. Other acute care center
3. Other chronic care center
4. Born at operative center

# Scenarios: Location from which patient was admitted....

**Patient admitted to  
surgical hospital  
from clinic**

**Home**

Patient not admitted to another acute care or chronic care facility prior to admission

**Patient transferred  
from OSH ED to  
surgical hospital**

**Home**

ED visit is not an admission to an acute care center

**Patient transferred  
from OSH NICU to  
surgical hospital**

**Other acute care  
center**

Patient admitted to the NICU at another acute care center



# *Primary Procedure Determination Updates*



# Primary Procedure Determination Rules

- 3 new rules
- Will be applied in the 2021 harvest

## If any multiple component operation that includes one of the below Glenn/Hemifontan Procedures:

1670 = Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn)

1680 = Glenn (unidirectional cavopulmonary anastomosis) (unidirectional Glenn)

1690 = Bilateral bidirectional cavopulmonary anastomosis (BBDCPA)

1700 = Hemifontan

2130 = Superior cavopulmonary anastomosis(es) + PA reconstruction

3160 = Kawashima operation (superior cavopulmonary connection in setting of interrupted IVC with azygous continuation)

## Also includes any of the following

1410 = Transplant, Lung(s)

890 = Transplant, Heart

900 = Transplant, Heart & lung

2180 = Hybrid Approach "Stage 1", Stent placement in arterial duct (PDA) + application RPA & LPA bands

2140= Hybrid approach "Stage 2", Aortopulmonary amalgamation + Superior Cavopulmonary anastomosis(es) + PA Debanding + Aortic arch repair (Norwood [Stage 1] + Superior Cavopulmonary anastomosis(es) + PA Debanding)

2150= Hybrid approach "Stage 2", Aortopulmonary amalgamation + Superior Cavopulmonary anastomosis(es) + PA Debanding + Without aortic arch repair

Then, the primary procedure will be determined to be the pertinent one from the second list of procedures and not one of the Glenn/Hemifontan procedures

**If any multiple component operation that includes one of the below named “PVR” Procedures,**

- 2270 = Valvuloplasty converted to valve replacement in the same operation, Pulmonic
- 600 = Valve replacement, Pulmonic (PVR)

**Also includes the following,**

- 530 = PA, Reconstruction (plasty), Main (trunk)

**then, the  
primary  
procedure will be  
one of the PVR  
procedures and  
not 530**

## **In the event of the following simultaneous procedures:**

- 610 = Conduit placement, RV to PA,

## **Combined with any of the following two procedures:**

- 740 = Ross procedure
- 760 = Ross-Konno procedure

**Then the primary procedure comes from the following list unless the operation includes an additional simultaneous procedure with a higher STAT Score or a procedure from the list under Exception 1 (procedures listed on the DCF in the section titled “PSFs”, exclusive of the three VSD repair procedures):**

- 740 = Ross procedure
- 760 = Ross-Konno procedure

**In the latter instance, the component procedure with the highest STAT Mortality Score or the procedure from the list under Exception 1 is the Primary Procedure.**



# **IQVIA Update Melanie Bent**

# IQVIA Upcoming Report Enhancements

**The below is currently under release review by the IQVIA development team.  
Release Timing: TBD**

## **CHSD Primary Procedure Report**

- **STS-7662** – Report update will be implemented to update the priority of transplants when done in conjunction with Rule 1 Exception codes
- **STS-7666** – Report update will be implemented to update to include a new rule to address PVR procedures.
- **STS-7667** – Report will be updated to include new STAT codes on the report
- **STS-7678** – Report will be updated to consider VSD repair patch (110) as the primary when the report identifies a tie with the PFO, Primary closure (100) when done in conjunction with the Valvuloplasty, Tricuspid (460)



# IQVIA Upcoming Report Enhancements

**The below is currently under release review by the IQVIA development team.**

**Release Timing: TBD**

## **CHSD Risk Adjusted Report**

- **STS-7589** – Updates will be applied to Table 21 to remove results for VSD + Aortic Arch Hypoplasia and VSD + Coarctation of Aorta (1275 and 1285)

# IQVIA Library Resources

**The full list of CHSD known Issues are posted to the Library. Enhancements are still under review and will be updated once the list is finalized.**

# IQVIA Update

**Please note: Submitted tickets are currently under review and the IQVIA support team will follow up on resolution and/or target release confirmation.**

**The IQVIA Team is currently reviewing items that will be released in an upcoming release. Those items will be posted to the Notifications section.**



# Analysis Report Questions

- Please contact IQVIA Support
  - [chsdttechsupport@iqvia.com](mailto:chsdttechsupport@iqvia.com)
- STS/DCRI will be looped in as needed when tickets are escalated to Tier 2



# Contact Information

Leigh Ann Jones, STS  
National Database Manager,  
Congenital and General  
Thoracic

- [Ljones@sts.org](mailto:Ljones@sts.org)
- 312-202-5822

Database Operational  
Questions

- [STSDB@sts.org](mailto:STSDB@sts.org)

# Upcoming CHSD Webinars

## Monthly Webinar

- February 15 @ 12pm CT

## Upgrade Webinars

- February 1 @ 12pm CT
- February 8 @ 12pm CT
- February 22 @ 12pm CT





# 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!



# STS National Database™

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## THANK YOU FOR JOINING!