



Society of Thoracic Surgeons

Congenital Heart Surgery Database
Monthly Webinar

August 15, 2023

Agenda

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

STS Updates

- 6.23.2 Training Manual is posted!
- STS Website and IQVIA Library Cleanup
 - Purpose is to maintain version control
 - Moving forward *Additional Resources* will be included in the Analyses Overview and Training Manual
 - Rules to Determine Primary Diagnosis and Primary Procedure
 - STS Combination Procedure Codes
 - Appendix C: STAT Categories
 - Will be moved to Version 6.23.2 page (currently resides under v3.41 page)
 - Minor updates to include update reference to 6.23.2 and the **highlighting of all combination procedures**
 - Refer to Combination Procedures listed in TM and Analyses Overview for all possible component procedures
 - **NO CHANGES TO ANY SCORES OR CATEGORIES**
- Fall 2023 Harvest: Includes Surgery dates 7/1/2019 -6/30/2023
 - Harvest Closes **September 15th @ 11:59pmET**
 - Opt Out no later than **September 19th**
 - At Risk for Exclusion email notifications to be sent approximately 2 weeks prior to harvest close



6.23.2 Data Manager Education

August 15, 2023



Discussion Topics

Fontan Procedure Coding

Training Manual Updates

Fontan + Atrioventricular Valvuloplasty Procedures

2340 – Fontan + Atrioventricular Valvuloplasty

950 - Fontan, Atrio-pulmonary connection

or 960 - Fontan, Atrio-ventricular connection

or 970 - Fontan, TCPC, Lateral tunnel, Fenestrated

or 980 - Fontan, TCPC, Lateral tunnel, Nonfenestrated

or 1000 - Fontan, TCPC, External conduit, Fenestrated

or 1010 - Fontan, TCPC, External conduit, Nonfenestrated

or 2780 - Fontan, TCPC, Intra/extracardiac conduit, Fenestrated

or 2790 - Fontan, TCPC, Intra/extracardiac conduit, Nonfenestrated

or 3310 - Fontan, TCPC, External conduit, hepatic veins to pulmonary artery, Fenestrated

or 3320 - = Fontan, TCPC, External conduit, hepatic veins to pulmonary artery, Nonfenestrated

or 1025 - Fontan revision or conversion (Re-do Fontan)

or 1030 - Fontan, Other

and

2300 - Valvuloplasty, Common atrioventricular valve

or 460 - Valvuloplasty, Tricuspid

or 830 - Valvuloplasty, Mitral

Fontan + Atrioventricular Valvuloplasty Procedures

2340 – Fontan + Atrioventricular Valvuloplasty

950 - Fontan, Atrio-pulmonary connection

or 960 - Fontan, Atrio-ventricular connection

or 970 - Fontan, TCPC, Lateral tunnel, Fenestrated

or 980 - Fontan, TCPC, Lateral tunnel, Nonfenestrated

or 1000 - Fontan, TCPC, External conduit, Fenestrated

or 1010 - Fontan, TCPC, External conduit, Nonfenestrated

or 2780 - Fontan, TCPC, Intra/extracardiac conduit, Fenestrated

or 2790 - Fontan, TCPC, Intra/extracardiac conduit, Nonfenestrated

or 3310 - Fontan, TCPC, External conduit, hepatic veins to pulmonary artery, Fenestrated

or 3320 - = Fontan, TCPC, External conduit, hepatic veins to pulmonary artery, Nonfenestrated

or 1025 - Fontan revision or conversion (Re-do Fontan)

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and

2300 - Valvuloplasty, Common atrioventricular valve

or 460 - Valvuloplasty, Tricuspid

or 830 - Valvuloplasty, Mitral

Fontan + Atrioventricular Valvuloplasty Procedures

(1025) Fontan revision or conversion (re-do Fontan)

- A revision and conversion are inherently different
- Task Force expressed a desire to separate
- Cannot REALLY separate until a future version
- Short term solution

Fontan + Atrioventricular Valvuloplasty Procedures



- For initial Fontan when done with AVV, no changes!
- Code type of Fontan plus the type of AV Valvuloplasty
 - 950 - Fontan, Atrio-pulmonary connection
 - or 960 - Fontan, Atrio-ventricular connection
 - or 970 - Fontan, TCPC, Lateral tunnel, Fenestrated
 - or 980 - Fontan, TCPC, Lateral tunnel, Nonfenestrated
 - or 1000 - Fontan, TCPC, External conduit, Fenestrated
 - or 1010 - Fontan, TCPC, External conduit, Nonfenestrated
 - or 2780 - Fontan, TCPC, Intra/extracardiac conduit, Fenestrated
 - or 2790 - Fontan, TCPC, Intra/extracardiac conduit, Nonfenestrated
 - or 3310 - Fontan, TCPC, External conduit, hepatic veins to pulmonary artery, Fenestrated
 - or 3320 - = Fontan, TCPC, External conduit, hepatic veins to pulmonary artery, Nonfenestrated
 - or 1030 - Fontan, Other
- **AND**
 - 2300 - Valvuloplasty, Common atrioventricular valve
 - or 830 - Valvuloplasty, Mitral or systemic atrioventricular valve
- Add the combo code (2340) **IN ADDITION** to the more specific codes

Fontan + Atrioventricular Valvuloplasty Procedures

- For revisions to existing Fontan - no real changes
- If the circulation is staying the same and the operation is to revise the EXISTING Fontan circulation (e.g., remove a clot, shorten the conduit), then code:
 - 1025 – Fontan revision or conversion (Re-do Fontan)
 - and*
 - 2300 - Valvuloplasty, Common atrioventricular valve
 - or 830 - Valvuloplasty, Mitral or systemic atrioventricular valve*
- Also code combo code (2340 – Fontan + Atrioventricular Valvuloplasty)
- Primary procedure = **2340 – Fontan + Atrioventricular Valvuloplasty**



Fontan + Atrioventricular Valvuloplasty Procedures



- When converting to a ***new*** type of Fontan – changes
- If converting to a new type of Fontan (e.g., lateral tunnel to extracardiac), then code:

950 - Fontan, Atrio-pulmonary connection

or 960 - Fontan, Atrio-ventricular connection

or 970 - Fontan, TCPC, Lateral tunnel, Fenestrated

or 980 - Fontan, TCPC, Lateral tunnel, Nonfenestrated

or 1000 - Fontan, TCPC, External conduit, Fenestrated

or 1010 - Fontan, TCPC, External conduit, Nonfenestrated

or 2780 - Fontan, TCPC, Intra/extracardiac conduit, Fenestrated

or 2790 - Fontan, TCPC, Intra/extracardiac conduit, Nonfenestrated

or 3310 - Fontan, TCPC, External conduit, hepatic veins to pulmonary artery, Fenestrated

*or 3320 - = Fontan, TCPC, External conduit, hepatic veins to pulmonary artery,
Nonfenestrated*

or 1030 - Fontan, Other

and

2300 - Valvuloplasty, Common atrioventricular valve

or 830 - Valvuloplasty, Mitral or systemic atrioventricular valve

Fontan + Atrioventricular Valvuloplasty Procedures



- *New type of Fontan + AVV
and*
1025 – Fontan revision or conversion (Re-do Fontan)
- Also code combo code (2340 – Fontan + Atrioventricular Valvuloplasty)
- Primary procedure = **1025 – Fontan revision or conversion (Re-do Fontan)**

Fontan + Atrioventricular Valvuloplasty Procedures



- Upon analysis, combination code will be made using 950, 960, 970, 980, 1000, 1010, 2780, 2790, 3310, 3320, or 1030
- And NOT 1025

Fontan + Atrioventricular Valvuloplasty Procedures

(2340) Fontan
+ AVV

Initial Fontan +
AVV

No change
Code type of
Fontan + type of
AVV

Subsequent
Fontan (revision) +
AVV

Reminder:
Code revision
(1025) + type of
AVV

Subsequent
Fontan
(conversion) +AVV

Change:
Code *new* type of
Fontan + type of
AVV + conversion
(1025)

Fontan + Atrioventricular Valvuloplasty Procedures

Fontan procedures WITHOUT AV Valvuloplasty – no changes



reminder

(3600) Fontan, takedown

- Use when taking down Fontan circulation (e.g., back to shunt or Glenn/Hemi)
- Takedown without replacement of Fontan circuit
- Code EVERYTHING done in the OR

Case Scenarios

HLHS patient presents s/p HemiFontan for fenestrated, lateral Fontan procedure, there are no intraoperative complications, and the patient is transferred without incident to the CVICU for recovery

Which procedure codes should be captured?

- ☐ (970) Fontan, TCPC, Lateral tunnel, Fenestrated
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☐ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

HLHS patient presents s/p HemiFontan for fenestrated, lateral Fontan procedure, there are no intraoperative complications, and the patient is transferred without incident to the CVICU for recovery

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- ☒ (970) Fontan, TCPC, Lateral tunnel, Fenestrated
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☐ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

Patient s/p Fontan returns for revision of the external conduit

Which procedure codes should be captured?

- ☐ (1000) Fontan, TCPC, External conduit, Fenestrated
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☐ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

Patient s/p Fontan returns for revision of the external conduit

Which procedure codes should be captured?

- ☐ (1000) Fontan, TCPC, External conduit, Fenestrated
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☒ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

Patient s/p Fontan returns for conversion from fenestrated, lateral tunnel Fontan to a fenestrated, external conduit

Which procedure codes should be captured?

- ☐ (1000) Fontan, TCPC, External conduit, Fenestrated
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☐ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

Patient s/p Fontan returns for conversion from lateral tunnel Fontan to external conduit

Which procedure codes should be captured?

- ☒ (1000) Fontan, TCPC, External conduit, Fenestrated
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☒ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

HLHS patient presents s/p HemiFontan for fenestrated, lateral Fontan procedure and systemic AV Valvuloplasty.

Which procedure codes should be captured?

- ☐ (970) Fontan, TCPC, Lateral tunnel, Fenestrated
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☐ (830) Valvuloplasty, Mitral or systemic atrioventricular valve

Case Scenarios

HLHS patient presents s/p HemiFontan for fenestrated, lateral Fontan procedure and systemic AV Valvuloplasty.

Which procedure codes should be captured?

- ☒ (970) Fontan, TCPC, Lateral tunnel, Fenestrated
- ☒ (2340) Fontan + Atrioventricular valvuloplasty
- ☒ (830) Valvuloplasty, Mitral or systemic atrioventricular valve

Case Scenarios

Patient s/p Fontan returns for revision of the external conduit and systemic AV valvuloplasty

Which procedure codes should be captured?

- ☐ (830) Valvuloplasty, Mitral or systemic atrioventricular valve
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☐ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

Patient s/p Fontan returns for revision of the external conduit and systemic AV valvuloplasty

Which procedure codes should be captured?

- ☒ (830) Valvuloplasty, Mitral or systemic atrioventricular valve
- ☒ (2340) Fontan + Atrioventricular valvuloplasty
- ☒ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

Patient s/p Fontan returns for conversion from fenestrated, lateral tunnel Fontan to a fenestrated, external conduit and a systemic AV valvuloplasty

Which procedure codes should be captured?

- ☐ (830) Valvuloplasty, Mitral or systemic atrioventricular valve
- ☐ (1000) Fontan, TCPC, External conduit, Fenestrated
- ☐ (2340) Fontan + Atrioventricular valvuloplasty
- ☐ (1025) Fontan revision or conversion (Re-do Fontan)

Case Scenarios

Patient s/p Fontan returns for conversion from fenestrated, lateral tunnel Fontan to a fenestrated, external conduit and a systemic AV valvuloplasty

Which procedure codes should be captured?

- ☒ (830) Valvuloplasty, Mitral or systemic atrioventricular valve
- ☒ (1000) Fontan, TCPC, External conduit, Fenestrated
- ☒ (2340) Fontan + Atrioventricular valvuloplasty
- ☒ (1025) Fontan revision or conversion (Re-do Fontan)

TM Updates

- Training manual updates will be made at least monthly
- Updates to TM denoted in red font
- May include general updates, clarifications, task force decisions etc.

✓ Version 6.23.2

Effective July 1, 2023

Training Manual - *Updated August 2023*

- Training Manual
- FAQ Summary

TM Updates

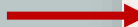
- FAQ Summary document updated with the TM updates
- Cumulative list of updates

✓ Version 6.23.2

Effective July 1, 2023

Training Manual - Updated August 2023

- Training Manual
- FAQ Summary



TM Updates

FAQ Summary Document

CHSD Version 6.23.2 Training Manual Updates

SeqNo	Short Name / Field Name	TM Update
440	PreopFactorMulti - Stroke, CVA, or Intracranial hemorrhage > Grade 2 within 48 hours prior to surgery (AgeDays<6575)	July 2023 - clarification to include intracranial hemorrhage greater than grade 2 only

Updated TM

440	Stroke, CVA, or Intracranial hemorrhage > Grade 2 within 48 hours prior to surgery (AgeDays<6575)	<u>Code this factor:</u> If the patient has documented history of a stroke and/or Intraventricular hemorrhage greater than grade II <i>within 48-hours</i> prior to OR entry date/time.
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TM Updates

FAQ Summary Document

CHSD Version 6.23.2 Training Manual Updates

SeqNo	Short Name / Field Name	TM Update
835	WBC	July 2023 - definition to indicate the WBC count in K/mcl (not mcl as previously stated).

Updated TM

Definition: Indicate the pre-operative White Blood Cell (WBC) count in **K/mcl** closest to the date and time prior to surgery.



In Summary

Use the most recent TM posted

Note the updated definitions

Individual questions will not be
posted

Available for help always!

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

User Group Call

- Sept 5 @ 12pm CT

Monthly Webinar

- September 19 @ 12pm CT

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THANK YOU FOR JOINING!