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
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, Atro-pulmonary connection
or 960 - Fontan, Atro-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

2300 - Valvuloplasty, Common atrioventricular valve
or 460 - Valvuloplasty, Tricuspid
or 830 - Valvuloplasty, Mitral
(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
  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 procedures WITHOUT AV Valvuloplasty - no changes

(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)
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)
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)
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?

- [x] (1000) Fontan, TCPC, External conduit, Fenestrated
- [ ] (2340) Fontan + Atrioventricular valvuloplasty
- [x] (1025) Fontan revision or conversion (Re-do Fontan)
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
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
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)
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.
• FAQ Summary document updated with the TM updates
• Cumulative list of updates
<table>
<thead>
<tr>
<th>SeqNo</th>
<th>Short Name / Field Name</th>
<th>TM Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>440</td>
<td>PreopFactorMulti - Stroke, CVA, or Intracranial hemorrhage &gt; Grade 2 within 48 hours prior to surgery (AgeDays&lt;6575)</td>
<td>July 2023 - clarification to include intracranial hemorrhage greater than grade 2 only</td>
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**Updated TM**

**Code this factor:** If the patient has documented history of a stroke and/or Intraventricular hemorrhage greater than grade II within 48-hours prior to OR entry date/time.
**FAQ Summary Document**

**Update TM**

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**CHSD Version 6.23.2 Training Manual Updates**

<table>
<thead>
<tr>
<th>SeqNo</th>
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<tr>
<td>835</td>
<td>WBC</td>
<td><strong>July 2023</strong> - definition to indicate the WBC count in K/mcL (not mcl as previously stated).</td>
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**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
Contact Information

Leigh Ann Jones, STS National Database Manager, Congenital and General Thoracic
• Ljones@sts.org

Tech Support
Analysis Report/Data Submission Questions
• STSDB_helpdesk@sts.org

Database Operational Questions
• STSDB@sts.org

Congenital STS Database Consultants
• Leslie Wacker lwacker@sts.org
• Chasity Wellnitz cwellnitz@sts.org
THANK YOU FOR JOINING!