STS National Database™
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Society of Thoracic Surgeons

**Congenital Heart Surgery Database
Monthly Webinar**

October 21, 2021

CHSD Monthly Webinar

- Welcome and Introductions
- STS Update
- Complications Revisited
- Risk Adjusted Analysis - Reporting Clarifications
- IQVIA Update
- User Feedback
  - Include Ticket Number/Case Number

STS Updates

- **2020 Harvest Analysis Update**
  - Risk Adjusted reports released on Monday, October 11th

- **2021 Harvest Update**
  - Please continue using open submission and cleaning your data
  - Harvest Close date mid-December 2021
  - Includes procedures up through 6/30/2021

- **2021 AQO Wrap Up**

- The live day sessions are now available on the virtual meeting platform

- Attendees have access to the platform until October 29, 2021

- All content will be moved to STS Learning Center and access will be available until AQO 2022
  - CE/CEU certificates will be processed once a month based on the prior month's completions.

- This rolling system will continue for three months and end on Saturday, January 15, 2022.

- Dr. Guleserian's video (Quality Improvement: Surgeon Experience) should be uploaded shortly

- The IQVIA CHSD Report on-demand presentation was removed and will be covered outside of AQO.

Complications Revisited...

Complications

An operative or procedural complication is any complication, regardless of cause, occurring (1) within 30 days after surgery or intervention in or out of the hospital, or (2) after 30 days during the same ~~hospitalization~~ episode of care subsequent to the operation or intervention. Operative and procedural complications include both intraoperative/ intraprocedural complications and postoperative/ postprocedural complications in this time interval.

Complication Data Collection:

- Throughout the patient's entire surgical hospitalization
  - If the patient discharges to home before the 30th postoperative day, collect through the 30th post-operative day

- If the patient transfers/discharges to another facility, collect through the end of the episode of care

Another Way to Say it…

Collect complications for the timeframe that is longest:

through the 30th postoperative day

_OR_

Through the end of the episode of care (database discharge date)

Exceptions: Transient Complications

Data collection ends at the time of surgical hospital discharge:

- (75) Arrhythmia necessitating pacemaker, Temporary pacemaker

- (223) Renal failure - acute renal failure, Acute renal failure requiring temporary dialysis with the need for dialysis not present at hospital discharge

- (224) Renal failure - acute renal failure, Acute renal failure requiring temporary hemofiltration with the need for dialysis not present at hospital discharge

- (325) Neurological deficit, Transient neurological deficit not present at discharge

3.41 STAT Score Update

3.41 New Procedures and STAT Scores

- 16 new procedures included at upgrade
  - STAT Scores released June 2020

- *Not* included in current analysis report released October 2021
  - Not handled as expected
  - Investigating how each procedure is being handled

- Will be analyzed in the upcoming 2021 analysis

3.41 Procedures and STAT Scores

- (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, Transanular patch, plus native valve reconstruction
- (3340) TOF repair, Ventriculotomy, Transanular 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
- (550) PA, reconstruction (plasty), Branch, Peripheral (at or beyond the first lobar branch) (Wording chang from v3.3)
- (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

Risk Adjusted Analysis Reports….Because you Asked

Risk Adjusted Dashboard Reports

- Not all tables are risk adjusted

- Table differences:
  - Included population
  - Analysis completed
  - Comparison groups

Read the CHSD Analysis Overview 10.11.21

Risk Adjusted Reports:
Mortality Analysis Table 1 vs. Table 16

Table 1

- Raw data

- Stratification by 1-yr & 4-yr analytic window

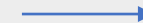- Overall mortality

- Mortality stratified by STAT score

Table 16

- Raw + Risk adjusted data

- 4-yr analytic window

- Procedure must have an associated STAT score

- Model criteria applied

Example:

Patient underwent banding of PDA - no procedure code for this (2010) Other procedure, Cardiac procedure
No STAT Score

- Inclusion in the Table 1 overall mortality calculation
- Excluded from Table 1 mortality analysis by STAT Mortality Category
- Excluded from Table 16 analysis

Identify Excluded Mortalities

Patient ID	Operation ID	Surgery Date	Category	Calculation	STAT Mortality Category
xxxx	xxxx	xxxx	Operative Mortality	Number of Mortalities	STAT Mortality Category 5
xxxx	xxxx	xxxx	Operative Mortality	Number of Mortalities	STAT Mortality Category 4
xxxx	xxxx	xxxx	Operative Mortality	Number of Mortalities	
xxxx	xxxx	xxxx	Operative Mortality	Number of Mortalities	STAT Mortality Category 4
xxxx	xxxx	xxxx	Operative Mortality	Number of Mortalities	
xxxx	xxxx	xxxx	Operative Mortality	Number of Mortalities	STAT Mortality Category 5

Identify Denominator Differences
Table 1 vs. Table 16

STAT Category	Mortality Calculation	Table 1	Table 16
Total Mortality STAT 1-5	Number of Mortalities	31	31
	Number Eligible	1500	1497

STAT Category	Mortality Calculation	Table 1	Table 16
STAT Mortality Category 1	Number of Mortalities	1	1
	Number Eligible	450	450
	Mortality Percent	0.22	0.22
STAT Mortality Category 2	Number of Mortalities	6	6
	Number Eligible	475	473
	Mortality Percent	1.26	1.27
STAT Mortality Category 3	Number of Mortalities	3	3
	Number Eligible	200	199
	Mortality Percent	1.5	1.51
STAT Mortality Category 4	Number of Mortalities	11	11
	Number Eligible	301	301
	Mortality Percent	5.78	5.78
STAT Mortality Category 5	Number of Mortalities	10	10
	Number Eligible	74	74
	Mortality Percent	11.11	11.11

Identify Denominator Differences Table 1 vs. 16

- Review by STAT Category
- Export number eligible into Excel
- Compare Operation IDs between table lists

Review the Cause for Exclusion from Table 16

- Review case in your software

- Remember inclusion criteria:

  - Age

  - Sex male or female

  - v.3.0 or later

  - Neonates & infants Weight for age Z-score between -7.0 and 5.0

Table 7 Analysis

- Inclusion into mortality analysis

- STAT Mortality stratification – must have a primary procedure associated with a STAT Mortality Score

- Table presents the participant mortality rate and 95% CI

- Comparison group – STS aggregate mortality rate –

  -- Overall mortality   -- 10th/50th/90th percentiles

  -- STAT Mortality Category   -- Min and Max rate

Table 18 & 19 – Median Postop LOS

- New calculation applied

- Historically calculated as a median of the mean

- Now is a true calculated median

  - Remember this when comparing previous analysis reports

  - Educate your surgeons / teams

Updates following AQO

2020 STAT Scores, updates

- Revised timeline from slides shared
- The 2021 "harvest" deadline has not been announced
- Therefore, reports will not be released in January, 2022

- Currently, the plan is to return to the regular harvest schedule in 2022 (March & September)
- Remember – harvests are CONTINUOUS
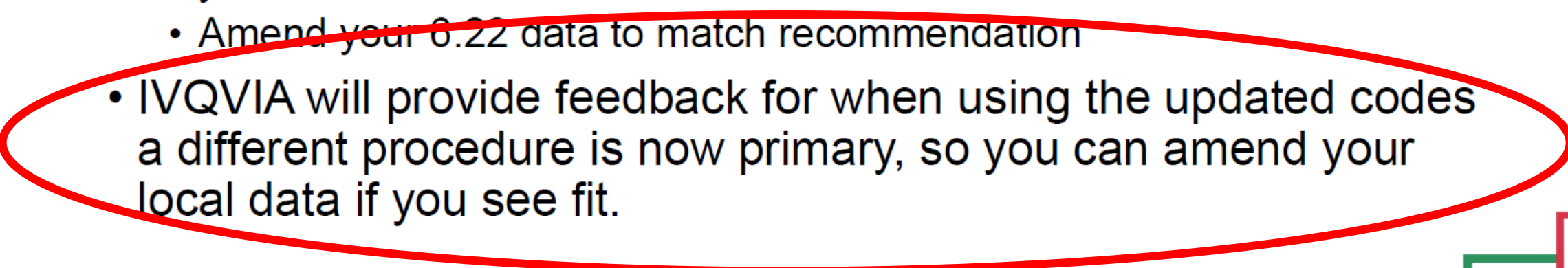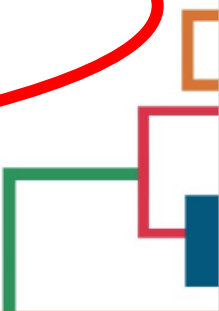
Timeline for Transition

- 4th Quarter 2021 – submit data through the end of June 2021
  - Update data using the suggestions below
- 4th Quarter – Codes will be determined for the 3.41 procedures that are not a more detailed term of a pre-existing term (TOF, DORV)
- Jan 2022 – Receive Fall 2021 Feedback report utilizing the updated 2020 STAT codes – this will NOT match your local data
- July 2022 – Update software 6.22 that includes all the new procedure terms and updated scores
- Spring 2022 – report comes out around July- this will NOT match your local data
- Next 4 years – feedback data will not match local data for 3.41 cases

2020 STAT Scores, continued

- IQVIA does not have a report for identifying primary procedure mismatches using new 2020 scores

- Vendors do not (necessarily) have updated 2020 scores

- Implementation of the new 2020 STAT scores is under discussion

Key Points

- For the next about 4 years your STS CHSD Feedback data will not match your local data as you cannot use the new combination codes added in 6.22 for 3.41 records

- IVQIA will provide mismatch report for 3.41 and 6.22 where a combination code will be used at analysis
    - For 3.41, note that this will be a mismatch between your local data and your feedback data
    - Amend your 6.22 data to match recommendation

- IVQVIA will provide feedback for when using the updated codes a different procedure is now primary, so you can amend your local data if you see fit.

Corrections to AQO, summary

- 2021 reports are **not** expected in January

- Harvest close expected by end of calendar year

- 2022 harvests should follow a "regular" (twice a year) schedule

- Exactly when the 2020 scores will be used for analysis is under discussion

IQVIA Update
Joe Brower

IQVIA 2021 Known Issues Con't

Items were released to the Production environment on the weekend of Oct. 9th

Primary Procedure Report

STS-7126 - Primary Procedure Mismatch Report Exception Rule 1 is being ignored and using the general rule, VSD repairs are displayed as the recommended primary

STS-7240 – Exception Rule related to codes 1280 and/or 1660 are not recognized in identified scenarios

IQVIA 2021 Known Issues

Items below are under review by the IQVIA development team and will be included in a future release (TBD)

Missing Variable Report

- **STS-6892 –** Identified variable logic will be updated on the MVR report for cases where demographic version is prior to 3.3, currently they are displaying as missing

- **STS-7282** – Anesthesia Adverse event update to the calculation will be added to the MVR report calculation

- **STS-7271** – COVID19 variables (TempCode) and (TempDate) and Hematocrit Prior to Circulatory Arrest or Cerebral Perfusion (HCTPriCircA) will be added to the MVR report calculation

Case Eligibility and Mortality Analysis Report

- STS-7380 - CHSD Case Eligibility Report should display MT30STAT variable as missing when 'Unknown' is selected on the case form.

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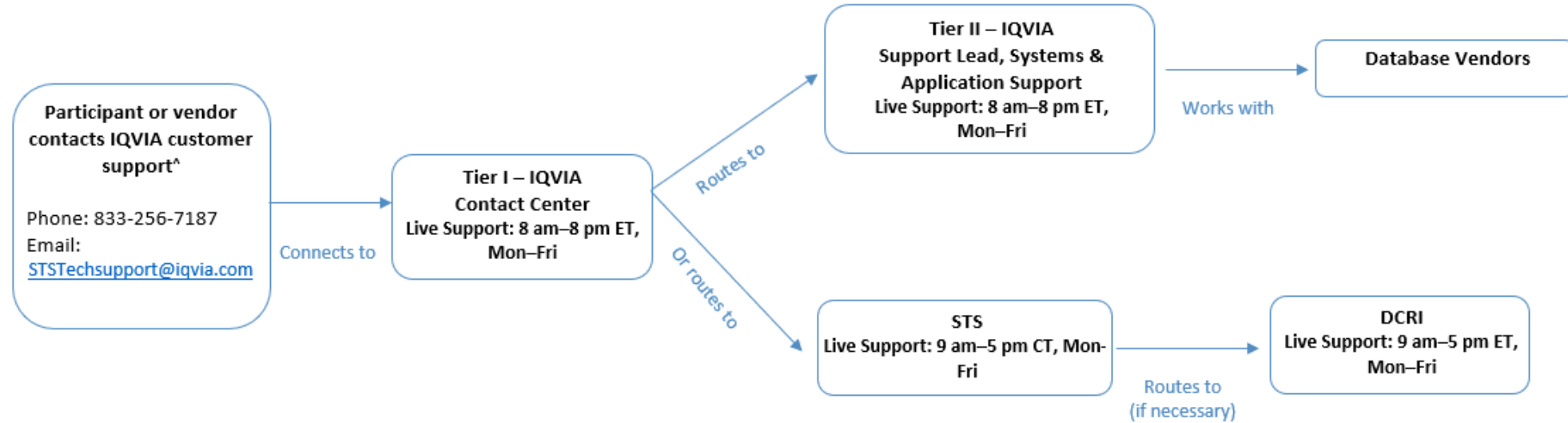
The IQVIA Team is currently reviewing items that will be released in an upcoming release. Those items will be posted to the Notifications section.

IQVIA Support Plan

Please include your Participant ID

Participant or vendor contacts IQVIA customer support^

Phone: 833-256-7187
Email: STSTechsupport@iqvia.com

Connects to

Tier I – IQVIA Contact Center
Live Support: 8 am–8 pm ET, Mon–Fri

Routes to

Tier II – IQVIA Support Lead, Systems & Application Support
Live Support: 8 am–8 pm ET, Mon–Fri

Works with

Database Vendors

Or routes to

STS
Live Support: 9 am–5 pm CT, Mon-Fri

Routes to (if necessary)

DCRI
Live Support: 9 am–5 pm ET, Mon–Fri

IQVIA's Support Plan

- ^ Inquiries received outside live support hours will require a 24-hour turnaround window (i.e., one business day) for responses.

Resources

- [STS National Database Webpage](#)

- [STSTechSupport@IQVIA.com](#) (Uploader, DQR, Missing Variable, Dashboard, Password and Login)

- Phone Support: 1-833-256-7187

- [STS National Database Feedback Form](#)

- Resource Documents
    - Contact Information
    - Webinar Information
    - FAQ Document
    - Go-Live Checklist
    - Tiered-level Support Document
    - *Training Videos*
    - *Link to IQVIA*

Contact Information

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- 312-202-5822

Database Operational Questions

- STSDB@sts.org

Upcoming CHSD Webinars

User Group Call

- November 2 @ 12pm CT

Monthly Webinar

- November 18 @ 12pm CT

User Group Call

- December 7 @ 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!

THANK YOU FOR JOINING!