



# Data Manager Training Webinars

**Session 1 – Tuesday Feb 25<sup>th</sup> at 12 pm CST – ACSD Educational Resources and Navigation of the STS Website (1.5 hr)**

**Session 2 – Tuesday March 4<sup>th</sup> at 12 pm CST - Overview of Data Specs, Software Specs, Risk Model Variables (2 hr)**

**Session 3 – Tuesday March 11<sup>th</sup> at 12 pm CST - Case Inclusion and Choosing the Index Procedure, PROC ID chart (1.5 hr)**

**Session 4 – **Thursday** March 20<sup>th</sup> at 12 pm CST - Harvesting your Data and the DQR report (1.5 hr)**

**Session 5 – Tuesday March 25<sup>th</sup> at 12 pm CST - National Report Overview and Process / Outcome Measures (1.5 hr)**

**Session 6 – Tuesday April 1<sup>st</sup> at 12 pm CST - IQVIA Reporting Overview (1.5 hr)**

**Session 7 – Tuesday April 8<sup>th</sup> at 12 pm CST - Updating site forms, STS Helpdesk, and RedCap forms (1.5 hr)**

# Learning Objectives:

Upon completion of this session, participant will be able to:

- Identify STS ACSD Educational Resources
- Know how to navigate the STS Website





# *Data Manager Resources*



**STS Website – sts.org**



**Data Manager Training Sessions**



**Monthly Webinars**



**Data Manager Collaborative ( formally Mentorship Program)**



**Advances in Quality Outcomes Conference (AQO)**



**Database News newsletter**



**ACSD– Regional groups**

# STS National Database Website



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of Thoracic  
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## STS National Database

The gold standard of cardiothoracic surgery clinical outcomes registries, with nationally recognized performance measures for adult cardiac, general thoracic, congenital heart surgery, and mechanical circulatory support.

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Access the Database

Registries

STS National Database

For Data Managers

ACC TVT Registry

Research

STS Research Center

Current Projects

Published Research

Industry Data Requests

Public Reporting

STS Public Reporting

ACC / TVT Public Reporting

Public Reporting Toolkit

# STS National Database Website



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[Home](#) > [For Data Managers](#)

## Resources for Data Managers

Tips, training, and key deadlines for data abstraction

[Access the Database](#)[IQVIA Access](#)

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# Resources for Data Managers

[Home](#) > [For Data Managers](#)

[Table of Contents](#)

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[Data Manager Guidance](#)

[Clinical Question Request Form](#)

[Contact and Support](#)

[Essential Forms and Resources](#)

[How-To Videos](#)

[Adult Cardiac Surgery Database](#)

**Under the Data Manager Guidance Section, there are 3 sections:**

- **Data Manager Collaborative**
- **Regional Groups**
- **STS National Database News**



## Data Manager Collaborative

# Data Manager Guidance

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## Data Manager Collaborative

This program (formerly the Data Manager Mentorship Program) pairs data managers who are seeking advice related to data abstraction. After submitting a sign-up form, you will be matched based on registry type, STS-certified software vendor, and other factors. STS will share your contact information with other data manager(s) to facilitate an ongoing professional relationship. [Learn more and sign up.](#)

If you have questions about the program, contact the [STS Database Operations Team.](#)

# Data Manager Guidance

## Regional Groups

STS National Database regional groups offer a collaborative networking environment for peer-to-peer support and non-clinical guidance related to data abstraction. [Learn more.](#)



Currently, there are 18 Adult Cardiac Surgery Database regional groups covering 43 states:

- California
- Central Southeast Region (Arkansas, Kentucky, Tennessee)
- Florida
- Gulf States Region (Alabama, Louisiana, Mississippi)
- Maryland
- Michigan
- Mid-Atlantic CV Quality Managers (Delaware, NJ, NY, Pennsylvania)
- Minnesota (Minnesota, North Dakota)
- Missouri / Kansas
- Nebraska/Iowa/Illinois
- Northwest Region (Alaska, Hawaii, Idaho, Oregon, Montana, Washington)
- Ohio
- Rocky Mountain Region (Arizona, Colorado, New Mexico, Utah, Wyoming)
- Southeastern Data Users Group (Georgia, North Carolina, South Carolina)
- Southern New England Region (Connecticut, Massachusetts, Rhode Island)
- Texas/Oklahoma
- Virginia
- Wisconsin

**\*\* Needs a Leader – Volunteer Today!**



**Each region has a leader,  
feel free to reach out to  
your contact here:**

<https://www.sts.org/sites/default/files/2025-01/STS%20Regional%20Leader%20Roster.%20Jan.%202025.pdf>

# Data Manager Guidance

## STS National Database News

This monthly e-newsletter offers news and updates about the STS National Database. STS data managers and surgeon participants receive a free subscription, which includes updates for each registry in which they participate.

The logo features the text "STS National Database" in white on a dark blue background, with "NEWS" in red outlined letters below it. To the right, there are three diagonal stripes in red, white, and blue.

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

May 2024

### Quick Links

[ACSD Update](#)

[GTSD Update](#)

[CHSD Update](#)

[Intermacs/Pedimacs Update](#)

**This bimonthly e-newsletter offers news and updates about the STS National Database, with a separate issue for each of the four registries. STS data managers receive a free subscription for each registry in which they participate.**

**Note: All Primary and Backup Data and File Contacts, Surgeon Participants, Data Quality Report Recipients, and National Report Recipients are already on the email list for this newsletter.**

**<https://www.sts.org/subscribe-sts-national-database-news>**

# Resources for Data Managers

## Contact and Support:

- Ask a Clinical Question – FAQ Mailbox
  - [stsd-db-faq@sts.org](mailto:stsd-db-faq@sts.org)
- STS Help Desk
  - [stsd-helpdesk@sts.org](mailto:stsd-helpdesk@sts.org)
- STS Database Operations
  - [stsd@sts.org](mailto:stsd@sts.org)



# Resources for Data Managers

## AKA - The FAQ Mailbox

### Clinical Question Request Form

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Are you struggling with a clinical question regarding data abstraction? Fill out the Clinical Question Request Form and get a response within 30 days.

[Submit a Request](#)

STS FAQ – [stsd\\_b\\_FAQ@sts.org](mailto:stsd_b_FAQ@sts.org)

“Clinical Questions”

- Coding questions
- Clinical questions/concerns
- Data Specs / Training manual questions

# Ask a Clinical Question



Full Name \*

Email \*

Phone \*

 **Please put in a phone number**

Participant ID #

Database Version \*

- Select - ▼

State/Province \*

- Select - ▼

Sequence # (Numbers and Letters Only): \*

 **Important only numbers and letters**

Short Field Name:

IMPORTANT: FOR HIPAA COMPLIANCE PURPOSES, PLEASE NOTE THAT ANY PATIENT IDENTIFYING INFORMATION<sup>1</sup> SHOULD BE REDACTED FROM THIS SUBMISSION.

# Contact and Support

## Contact and Support

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STS is available to help you with questions regarding the STS National Database.

If you have specific questions regarding the platform or participant reports, contact the [STS National Database helpdesk](#). You will receive a helpdesk ticket, and STS will aim to follow up with you within 2 business days. Note: Heavy call and email volumes are anticipated as harvest deadlines approach. We appreciate your patience.

For general questions (like invoicing, updating contacts, or harvest schedules), contact the [STS National Database staff team](#). For public reporting questions, contact [STS Public Reporting](#).

Contact Helpdesk

**DM Training Session 7  
will include more  
about the Helpdesk  
and the National  
Database support**







# Resources for Data Managers

The Society of Thoracic Surgeons believes that the public has a right to know the quality of surgical outcomes.

To further this goal, the Society has established the STS Public Reporting initiative, which allows participants in the [STS National Database](#) to voluntarily report their surgical outcomes to the public on the STS website.



**Public  
Reporting**

For public reporting questions, contact [STS Public Reporting](#).

## STS National Database Forms

# Essential Forms and Resources

- Database participant role descriptions
- Database participant and platform roles
- Participant contact form
- Schedule A
- Schedule B
- Database software and vendors
- STS National Database audits (login required)
- List of mortality status fields
- STS/IQVIA uploader instructions
- ACSD Data Manager Survey Results 2023
- Minor data requests for quality improvement
- CHSD DM Survey 2023
- GTSD DM Survey 2023
- Intermacs DM Survey 2023

**DM Training Session 7 will include more about essential forms**

**DM Training Session 4 will include more on uploader instructions**

# Database Software and Vendors



- **Provides detailed contact information for all the software vendors with an STS Certified Software in one or more of the STS National Database Registries.**
- **Only vendors that have agreed to be listed here and have an STS Certified Software and/or Harvest Compliant Software product for a particular Database component are identified below.**
- **Please contact all software vendors directly for information regarding their STS Certified Software or Harvest Compliant Software products. *All description information has been self-reported by the vendor to STS.***
- **In addition, to these vendors listed there is an option for Direct Data Entry into the IQVIA Platform.**

- > ARMUS
- > Axis Clinical Software, Inc.
- > BayaTree (formerly Velos)
- > CardioAccess, Inc.
- > CardioPulse
- > Carta Healthcare
- > Cedaron Medical, Inc.
- > heartbase
- > Juniper Consulting Group (formerly
- > LUMEDX
- > Navion Healthcare Solutions
- > Q-Centrix
- > Quantros, Inc.

# Direct Data Entry into the IQVIA Platform (DDE)

- **DDE offers Adult Cardiac, General Thoracic, and Congenital Heart Surgery Database participants a mechanism to submit data to the Database without using an STS-certified software vendor.**
- **Data entry is completely manual.**
- **Participants considering DDE should note that the DDE interface will lack any customized resources, reports, and support offered by software vendors.**
- **There is no additional cost associated with the DDE option if the participation fees are current.**
- **STS does not offer formal DDE training. A resource folder with how-to-videos and other information is provided.**
- **Contact [STSDB@sts.org](mailto:STSDB@sts.org) for more information.**



# STS National Database Audits

STS National Database audits are designed to complement internal quality controls by examining the accuracy, consistency, and completeness of the data collected within the Database.

Ten percent of participating sites in each component database have been selected for independent audits in 2024.

Review the [STS National Database Audit Policy](#).

If you have questions regarding the audit process, contact Emily Conrad, STS National Database and Patient Safety Manager, [via email](#) or at 312-202-5839.

## ✓ Adult Cardiac Surgery Database

Healthcare Management Solutions, LLC (HMS) has been contracted by STS to conduct the STS Adult Cardiac Audit. This will be a remote audit. Please find attached audit instructions.

 [2024 ACSD Audit Instructions](#)

[Instructional Video](#)

## > Congenital Heart Surgery Database

## > General Thoracic Surgery Database

## > Intermacs Database

## > Pedimacs Database

# STS National Database Audits

## Audit site selection:

Each year approximately 10% of sites in each Database will be audited

To be included in the audit pool, a site must:

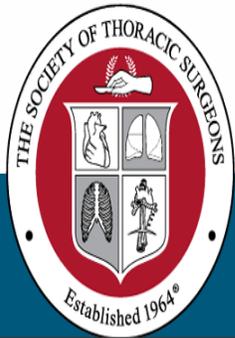
- a.* be an active Database participant for all 12 months of the audited time period and
- b.* capture the specified minimum number of procedures/admissions during the audit time period.

Database	Minimum Number of Procedures/Admissions
Adult Cardiac Surgery Database	20 isolated CABG procedures and 10 Valve or Valve + CABG procedures
Congenital Heart Surgery Database	30 index operations
General Thoracic Surgery Database	20 total lung cancer or esophageal cancer cases
Intermacs Database	10 patients implanted
Pedimacs Database	3 patients implanted

The Society of Thoracic Surgeons

Adult Cardiac Surgery Database:  
Data Managers Survey 2023

May 2023



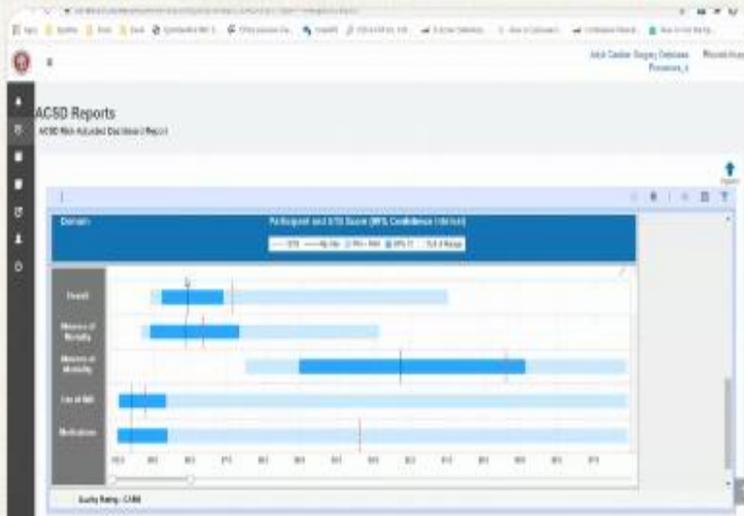
**Yearly Survey that includes valuable information on:**

- **Abstractor background, years of experience**
- **Abstractor responsibilities and registries they abstract for and monthly abstraction volume**
- **Use of outsourcing**
- **Participation in webinars and Training Manual use**
- **Participation in Regional Groups**
- **Attendance at AQO**

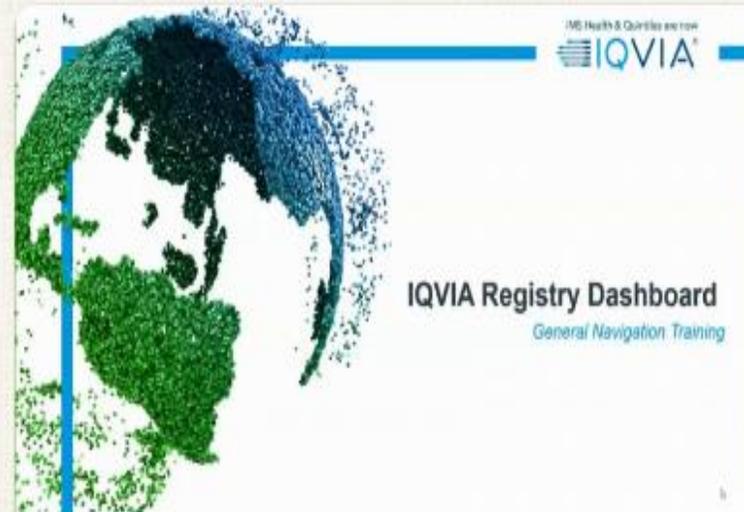
# How-To Videos

DM Training Session 4 will include more on harvesting Data and DQR

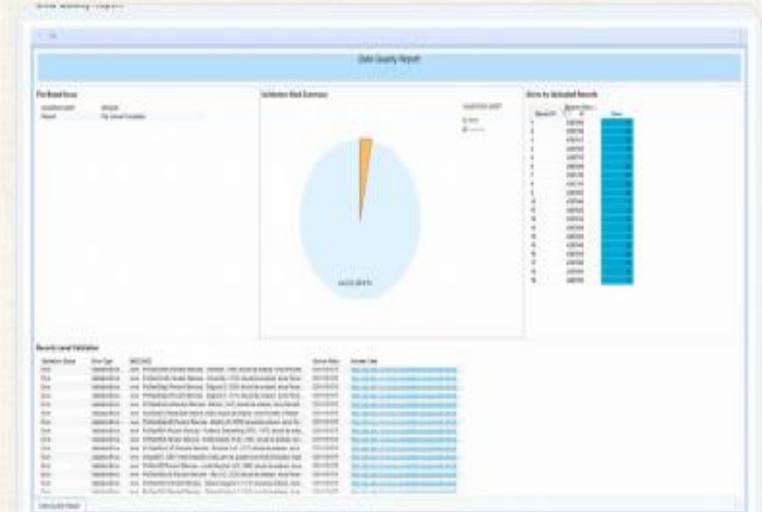
DM Training Session 6 will include more about IQVIA reporting



ACSD Risk Adjusted Dashboard Report



IQVIA Registry Dashboard - General Navigation Training



IQVIA Uploader and DQR Review

# STS National Database YouTube Channel

HOME

VIDEOS

PLAYLISTS

COMMUNITY

CHANNELS

ABOUT



## Created playlists

Sort by

Thank you for joining!

Next Intermacs/Pedimacs Webinars

May 27, 2020 @ 1 pm CT

June 24, 2020 @ 1 pm CT

34 videos

**Intermacs/Pedimacs Live Webinars**

[View full playlist](#)

59 videos

**GTSD Live Webinars**

Updated yesterday

[View full playlist](#)

Covid-19 Field Update

- Cardiac Rehab Phase II
- Continue to educate your patients regarding the importance of CR Phase II
- IN ADDITION TO WHAT IS IN THE TRAINING MANUAL
  - Code YES
    - Documented education provided on CR activities / exercises to be completed at home
    - Documented advice given on the importance of joining a CR Phase II program, even if cardiac rehab program is closed
    - Documented advice given on the importance of joining CR phase II program
  - Code NA
    - Documented advice given on the importance of joining a CR Phase II program, cardiac rehab is open, however the patient is documented to not be a candidate for CR Phase II due to elevated risk of Covid-19 exposure
  - Code NO
    - Documented advice given regarding CR Phase II

75 videos

**ACSD Live Webinars**

[View full playlist](#)

Covid-19 Data Collection

- Code NO
  - Patients who are not tested
  - Patients who are tested for Covid-19 and that test is negative
- Code YES
  - Patients who test positive for Covid-19
    - Prior to hospitalization for this surgery
    - In hospital, prior to surgery
    - In hospital, after surgery
    - After discharge, within 30 days of surgery
  - Patients who report they tested positive for Covid-19 after discharge within 30 days of surgery. Verify that the test was specific to Covid-19.
  - If the patient was tested within 30 days of surgery but the result comes back either 30 days, still code this as Code NO

79 videos

**CHSD Live Webinars**

Updated yesterday

[View full playlist](#)

# ACSD Webinars

## ACSD Quality Improvement Webinar

January 15 at 3 p.m. ET • 2 p.m. CT

Call In: 888-475-4499 or 312-626-6799

Webinar ID: 338 714 200

International Dial-in Numbers

Join Webinar

## Most Recent ACSD Webinars

View Webinar Recording

View Slides - ACSD Quality Improvement  
Webinar - December 18, 2024

View Slides - ACSD Monthly Webinar -  
December 4, 2024

View Slides - ACSD Quality Improvement  
Webinar - November 20, 2024

View Slides - ACSD Monthly Webinar -  
November 6, 2024

View Slides - ACSD Quality Improvement

**ACSD Webinars occur  
twice a month on the first  
and third Wednesday at 2  
pm CST**

- **First Wed of month is the Educational Webinar**
- **Third Wed of month is the Quality Webinar**

View Past ACSD Webinars

**This will also take you to the STS YouTube Channel**

**Not receiving notices about weekly webinars? [Add your name to the interest list.](#)**

- Education
  - Online Learning
  - Thoracic Surgical Curriculum
  - Webinars
  - E-Book
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  - Scholarships
- Events
  - Annual Meeting
  - Calendar of Events
  - Educational Collaborations

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 Event

2025 Advances in Quality & Outcomes: A Data Managers Meeting

Discussions on valuable research and important clinical findings with the goal of improving data collection and patient outcomes.

 Oct 2—3, 2025

 San Antonio, TX

Advances in Quality & Outcomes: A Data Manager Meeting (AQO)

# Adult Cardiac Surgery Database

The ACSD data collection forms and training manual require a participant login. *(If you need assistance with your login credentials, contact STS Member services.)*

Access Data Collection Resources

- › Sample Data Analysis Reports
- › Adult Cardiac Multiplier Tables
- › ACSD Harvest Deadlines
- › Exceptional Risk Exclusion Request

**DM Training Session 4 will include more on harvesting data**

## › Adult Cardiac Multiplier Tables

- [ACSD 2024 Harvest 3 Multiplier Table](#)
- [ACSD 2024 Harvest 2 Multiplier Table](#)
- [ACSD 2024 Harvest 1 Multiplier Table](#)
- [ACSD 2023 Harvest 4 Multiplier Table](#)
- [ACSD 2023 Harvest 3 Multiplier Table](#)
- [ACSD 2023 Harvest 2 Multiplier Table](#)
- [ACSD 2023 Harvest 1 Multiplier Table](#)
- [ACSD 2022 Harvest 4 Multiplier Table](#)
- [ACSD 2022 Harvest 3 Multiplier Table](#)
- [ACSD 2022 Harvest 2 Multiplier Table](#)
- [ACSD 2022 Harvest 1 Multiplier Table](#)

**DM Training Session 5  
will review the steps to  
Risk Adjust Locally**

## Multipliers are used to Guide to Risk Adjust your OE Locally

- **The O/E Ratio calibration multipliers for the most recent 3 years can be found on the website**
- **The choice of the appropriate O/E multiplier depends upon the time-period of the procedures for which the O/E Ratio has been calculated**
- **$O/E = (\text{percent observed events} \div \text{'expected' percent events}) \times O/E \text{ Ratio recalibration multiplier}$**

**Table 1. Observed/Expected Ratio Multipliers for Recalibration**

Procedure / Outcome	2022	2023	2024
<b>Isolated CABG</b>			
Operative Mortality	0.728	0.777	0.795
In-hospital Mortality	0.953	1.045	1.074
Morbidity: Permanent Stroke	0.869	0.913	0.857
Morbidity: Renal Failure	0.823	0.859	0.841
Morbidity: Prolonged Ventilation	1.192	1.258	1.293
Morbidity: Deep Sternal Wound Infection	0.757	0.843	0.934
Morbidity: Any Re-Operation	0.836	0.835	0.842
Morbidity: Combined Morbidity/Mortality Outcomes	1.105	1.153	1.174
Morbidity: PLOS > 14 days	0.808	0.822	0.804
Morbidity: PLOS < 6 days	1.066	1.059	1.072
<b>Isolated AV Replacement</b>			
Operative Mortality	0.807	0.884	0.926
In-hospital Mortality	1.072	1.193	1.154

✓ ACSD Harvest Deadlines

Note: If you have changed software vendors since you last harvested data to the STS Data Warehouse, or if your 10-digit Hospital NPI number or Hospital Name has changed, complete the [Participant Contact Form](#) to make these updates prior to your data submission. Or complete the [harvest opt-out form](#), if necessary.

2025 Harvest

Term	Harvest Submission Window Close	Opt-Out Date	Includes Procedures Performed Through:	Report Posting	Comments
Harvest 1	2/21/2025	2/25/2025	12/31/2024	Spring 2025	Star Rating
Harvest 2	5/23/2025	5/27/2025	3/31/2025	Summer 2025	
Harvest 3	8/22/2025	8/26/2025	6/30/2025	Fall 2025	Star Rating
Harvest 4	11/21/2025	11/25/2025	9/30/2025	Winter 2025	

Analysis for each harvest is based on a 36-month window.

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



**DM Training Session 4 will include more on harvesting data**



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About ▾

[Home](#) > Risk Calculators

# STS Risk Calculators

Next-generation, mobile-friendly tools to  
real time.

Registries

STS National  
Database

For Data  
Managers

STS/ACC

Research

STS Research  
and Analytic  
Center

Current Projects

Published

Public Reporting

STS Public  
Reporting

STS/ACC TVT  
Public Reporting

Public Reporting

Tools

Risk  
Calculators

**STS risk calculators rely on the latest data from the STS National Database to help surgeons with clinical decision-making and patient communications on surgical risk. Questions? [Contact the STS Research and Analytic Center.](#)**

**‘Learn more’ takes you to more information about each Calculator**

**‘Try it’ takes you directly to the Calculator**

## Adult Cardiac Risk Calculators

### ACSD Operative Risk Calculator

Assess risk of operative mortality, major morbidity, and short-term outcomes after the vast majority of adult cardiac surgeries.

[Learn More](#) | [Try It](#)

### Mitral Regurgitation Risk Calculator

Allows surgeons to estimate a patient’s risk for multiple outcomes: operative mortality, combined operative mortality or major morbidity, and conversion to MV replacement after attempted repair.

[Learn More](#) | [Try It](#)

### Isolated Tricuspid Valve Surgery Risk Calculator

Provides the most objective data possible to guide physician and patient shared decision-making and ongoing landmark trials comparing transcatheter and surgical treatments.

[Learn More](#) | [Try It](#)

### SAVR After TAVR Risk Calculator

Provides essential data to inform patient care decisions, particularly if TAVR is to be considered for younger age and low-risk patients.

[Learn More](#) | [Try It](#)

### Multi-Valve Surgery Risk Calculator

Assesses risk for multi-valve surgery involving replacement of the aortic valve, plus replacement or repair of the mitral valve, with and without concomitant coronary artery bypass grafting.

[Learn More](#) | [Try It](#)

# Exceptional Risk Exclusion

In highly extraordinary circumstances, adult cardiac index operations with rare co-morbidities that fall outside of the current STS Risk Models for benchmark operations may be performed by STS Database participants.

- If you believe a case meets exceptional risk criteria and would like it reviewed by the Exceptional Risk Exclusion Committee (EREC), please complete the form below **prior to surgery**. Forms are accepted if submitted on the day of surgery prior to incision.
- STS will contact you or your data manager for specific case information and documentation to determine if the case meets the exclusion requirements.
- You will be notified of the final decision after the date of surgery. If the case is approved by the EREC as exceptional risk, the complete in-hospital and/or 30-day data including mortality **information must still be submitted to the STS Database, but it will be removed from outcome reporting.**



# Exceptional Risk Exclusion

Cases to be considered for exceptional risk include, but are not limited to, the following:

- Fourth-time or greater re-operative epicardial or intra-cardiac operations
- Hepatic cirrhosis with known portal hypertension manifested by clear varices or portal ultrasound
- Under active consideration/evaluation for liver or lung transplantation (being considered or listed for kidney transplantation is not an acceptable exclusion)
- Prior cardiac or lung transplantation
- More than one limb amputation (greater than phalanges)
- Prior pneumonectomy
- Implanted permanent mechanical circulatory support device (RVAD, LVAD, TAH)

## Reminders:

- Only isolated cases
- Submit prior to surgery
- Submit cases that are NOT adequately captured by risk model
- Remember to redact records-all PHI, surgeon staff and hospital identifiers

Decisions are made prior to analysis



**STS expects exceptional risk cases to be rare, highly unusual and infrequent**

# Adult Cardiac Surgery Database

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The ACSD data collection forms and training manual require a participant login. *(If you need assistance with your login credentials, [contact STS Member services.](#))*

Access Data Collection Resources



Access Data Collection Resources (Login Required)



Navigating  
the STS  
Website:

✓ Version 4.20

*Effective date July 1, 2020*

## Training Manual - Updated for January 2025

- [Training Manual](#)
- [FAQ Summary](#)

## Data Collection Forms (DCFs)

- [ACSD Voluntary Beta Blocker Annotated DCF - updated January 30, 2024](#)
- [Word Version - ACSD Voluntary Beta Blocker DCF - updated January 30, 2024](#)
- [REDCap Voluntary Beta Blocker Data Collection Link](#)
- [REDCap Form for Valve Devices Not Available in Version 4.20.2](#)
- [Highlighted and Annotated DCF](#)
- [Highlighted and Non-Annotated DCF](#)
- [Word Version Highlighted DCF](#)
- [Annotated DCF](#)
- [Non-Annotated DCF](#)
- [Word Version DCF](#)

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[Important Information for ALL SITES!](#)

[Adult Cardiac Homepage](#)

[Data Collection Resources \(version specific abstraction documents\)](#)

[Ask an Abstraction Question](#)

[Data Manager Education](#)

[Monthly Webinars](#)

[Advances in Quality and Outcomes: A Data Managers Meeting](#)

[Performance Measures \(NQF Measures\)](#)

[STS National Database News - Publication for STS Data Managers](#)

[Public Reporting](#)

[Contact Information](#)

**Anatomical Diagrams**

- [Coronary Anatomy](#)
- [Valve Anatomy](#)
- [Aortic Aneurysm](#)
- [Aortic Dissection](#)

[Beta Blocker Project Supplemental Training Manual](#)

**First Page of Training Manual has many links**

Opens Bookmarks

Contents

### Table of Contents

- Introduction
- Administrative
- Demographics
- Hospitalization
- Risk Factors
- Chronic Lung Disease
- Update Jan 2025
- Update January 2025
- Update January 2025
- General Information for Pre-op Labs
- Previous Cardiac Interventions
- Preoperative Cardiac Status
- Update Clarification Jan 2025
- Preoperative Medications

STS SCA Data Specifications v4.20.2

**Data Collection Form fields:**  
Updated: **January 2025**

Updated once a month

- 
- [Important Information for ALL SITES!](#)
  - [Adult Cardiac Homepage](#)
  - [Data Collection Resources \(version specific abstraction documents\)](#)
  - [Ask an Abstraction Question](#)
  - [Data Manager Education](#)
  - [Monthly Webinars](#)
  - [Advances in Quality and Outcomes: A Data Managers Meeting](#)
  - [Performance Measures \(NQF Measures\)](#)
  - [STS National Database News - Publication for STS Data Managers](#)
  - [Public Reporting](#)
  - [Contact Information](#)
  - Anatomical Diagrams**
    - [Coronary Anatomy](#)
    - [Valve Anatomy](#)
    - [Aortic Aneurysm](#)
    - [Aortic Dissection](#)
  - [Beta Blocker Project Supplemental Training Manual](#)

isolated CABG. If the repair of the fistula is more involved and adds risk to the index procedure, please send a FAQ in to the mailbox for review and coding instructions.

SEQ. #: 2123

Long Name: Aorta Procedure Performed

Short Name: AortProc

Definition: Indicate whether a procedure was performed on the aorta.

Intent/Clarification: The intent is to capture procedures where procedures were performed involving the aorta. Aorta procedures for the purpose of the database refers to actual aorta procedures not stand-alone head or visceral vessels management without an additional aorta or planned staged aorta procedure performed.

Do not code Aortic Root Procedure when the surgeon performs only an annular enlargement with no other aortic root procedure in the aorta section, code this in Section K-1 Aortic Valve Section Seq 3460.

- Yes, planned
- Yes, unplanned due to surgical complication
- Yes, unplanned due to unsuspected disease or anatomy
- No

\*If Yes, complete Section M2

Aortoplasty done in conjunction with AVR to reduce the size of the ascending aorta is considered part of the closure and is not coded as an additional procedure. Update May 2021 - Aortoplasty done in conjunction with CABG to reduce the size of the ascending aorta is considered part of the closure and is not coded as an additional procedure. Update March 2022 - Aortoplasty done in conjunction with AVR, or CABG is considered part of the closure and is not coded as an additional procedure. Update Sept 2022 - Aortoplasty done in



Can use the search icon or Control F to search the Training Manual

# STS Training Manual

✓ Version 4.20

Effective date July 1, 2020

Training Manual - Updated for January 2025

- Training Manual
- FAQ Summary



Note: During a follow up phone call, a patient says that they tested positive for COVID-19. In this scenario, code Yes, after discharge within 30 days of surgery for patients who self-report testing positive for COVID-19 within 30 days of surgery. **Update June 2022 This includes self-reported positive home testing kits.**

Note: For Temporary Code 11 Yes, prior to hospitalization for this surgery. There is no timeframe for Temporary Code 11. Capture any COVID 19 positive test pre-op and enter the date in SEQ 7225 TempDt.

Note: Temporary Code 10 NO applies to any of the above timeframe's pre-op, during hospitalization, and post-op. For example, if the patient tested negative or was not tested pre-op, then code as NO. If the patient is then tested and is negative or not tested during the hospitalization, code NO. If the patient is discharged and is found to be COVID 19 positive within 30 days of surgery, remove code 10 and code Yes to Code 14.

**Update Aug 2021 – Patient says that they tested positive for COVID-19 during the pre-op assessment. In this scenario, code Yes, prior to hospitalization for this surgery (Harvest Code 11) for patients who self-report testing positive for COVID-19. Update June 2022 This includes self-reported positive home testing kits.**

**Update July 2020 - The nasal swab/OP swab, lower resp (RNA) test is the test that we are looking for. The IgG is the antibody test, this is not the test we are looking for.**

**New Updates  
in Red and  
older updates  
in Green**

Seq	Short Name	Update
410	ChrLungDType	Update Jan 2025 - To code asthma as obstructive type you need to have a PFT that indicates CLD as per the criteria above in seq 405. If you do not have a PFT in the asthma patient, then code the type of chronic lung disease as not documented.
485	LiverDis	Update January 2025 – Patients with a history of primary biliary cirrhosis can be coded 'Yes' to liver disease.
486	LiverCirrhosis	Update January 2025 – Patients with a history of primary biliary cirrhosis can be coded 'Yes' to liver cirrhosis.
885	PrevMI	Update Clarification Jan 2025 – A formally read and signed Echo, CT, MRI, or other nuclear imaging with evidence of an prior myocardial infarction is acceptable documentation for a history of prior MI.
1141	MedLipType	Repatha <b>Update September 2020 and other PCSK9 inhibitors</b> are captured as a non-statin/other. For patients who have been taking Repatha appropriately, once every 2 weeks <b>Update Jan 2025 or once every month</b> , code Yes to lipid lowering medication since they are taking it appropriately, once every 2 weeks <b>Update Jan 2025 or once very month</b> , and should be therapeutic.

## FAQ Summary

- **Running Summary from the beginning of the New Version**
- **Updated each month**

# Data Collection Forms (DCF's)

The Society of Thoracic Surgeons  
 Adult Cardiac Surgery Database  
 Data Collection Form Version 4.20.2



**STS National Database™**  
 Trusted. Transformed. Real-Time.

\*\*Risk Variable ++NQF

**A. Administrative**

Participant ID: \_\_\_\_\_ Record ID: (software generated)

Patient ID: (software generated)

Patient participating in STS-related clinical trial:  
 None  Trial 1  Trial 2  Trial 3  Trial 4  Trial 5  Trial 6 (If not None →)

**B. Demographics**

Patient Last Name: \_\_\_\_\_ Patient First Name: \_\_\_\_\_ Patient Middle Name: \_\_\_\_\_

Date of Birth: \_\_\_\_/\_\_\_\_/\_\_\_\_ (mm/dd/yyyy) Patient Age: \*\* \_\_\_\_\_ Sex: \*\*  Male  Female

National Identification (Social Security) Number Known:  Yes  No  Refused (If Yes →)

Medical Record Number: \_\_\_\_\_

Permanent Street Address: \_\_\_\_\_ City: \_\_\_\_\_

Region: \_\_\_\_\_ ZIP Code: \_\_\_\_\_ Country: \_\_\_\_\_

Race Documented:  Yes  No  Pt. Declined to Disclose

Race: (If Yes, select all that apply→)  White: \_\_\_\_\_  Am Indian/Alaskan: \_\_\_\_\_  
 Black/African American: \*\* \_\_\_\_\_  Hawaiian/Pacific Islander: \_\_\_\_\_  
 Asian: \*\* \_\_\_\_\_  Other: \_\_\_\_\_

Hispanic, Latino or Spanish Ethnicity: \*\*  Yes  No  Not Documented

**C. Hospitalization**

Hospital Name: \_\_\_\_\_ (If Not Missing →) Hospital ZIP Code: \_\_\_\_\_

Hospital National Provider Identifier: \_\_\_\_\_ Hospital CMS Certification Number: \_\_\_\_\_

Primary Payor: \*\* (Choose one.) (If Primary Payor =>None/Self ↓)  None/Self  Other

The Society of Thoracic Surgeons  
 Adult Cardiac Surgery Database  
 Data Collection Form Version 4.20.2



**STS National Database™**  
 Trusted. Transformed. Real-Time.

Add/Change to Field \*\*Risk Variable ++NQF Updates 06292020

**A. Administrative**

Participant ID: \_\_\_\_\_ Record ID: (software generated)

ParticiD (25) RecordID (30)

Patient ID: (software generated)

PatID (40)

Patient participating in STS-related clinical trial:  
 None  Trial 1  Trial 2  Trial 3  Trial 4  Trial 5  Trial 6 (If not None →) Clinical Trial Patient ID: \_\_\_\_\_  
 ClinTrial (45) ClinTrialPatID (46)

**B. Demographics**

Patient Last Name: \_\_\_\_\_ Patient First Name: \_\_\_\_\_ Patient Middle Name: \_\_\_\_\_

PatLName (50) PatFName (55) PatMName (60)

Date of Birth: \_\_\_\_/\_\_\_\_/\_\_\_\_ (mm/dd/yyyy) Patient Age: \*\* \_\_\_\_\_ Sex: \*\*  Male  Female

DOB (65) Age (70) Gender (75)

National Identification (Social Security) Number Known:  Yes  No  Refused (If Yes →)

SSNKnown (76) National ID Number: \_\_\_\_\_  
 SSN (80)

Medical Record Number: \_\_\_\_\_

MedRecN (85)

Permanent Street Address: \_\_\_\_\_ City: \_\_\_\_\_

PatAddr (90) PatCity (95)

Region: \_\_\_\_\_ ZIP Code: \_\_\_\_\_ Country: \_\_\_\_\_

PatRegion (100) PatZIP (105) PatientCountry (115)

Race Documented:  Yes  No  Pt. Declined to Disclose

RaceDocumented (150)

Race: (If Yes, select all that apply→)  White: \_\_\_\_\_  Am Indian/Alaskan: \_\_\_\_\_  
 Black/African American: \*\* \_\_\_\_\_  Hawaiian/Pacific Islander: \_\_\_\_\_  
 Asian: \*\* \_\_\_\_\_  Other: \_\_\_\_\_

Hispanic, Latino or Spanish Ethnicity: \*\*  Yes  No  Not Documented

Ethnicity (185)

Annotated DCF

Non-  
Annotated  
DCF



# What is a RedCap Form

- STS uses RedCap forms to collect additional data
- REDCap is HIPAA, FISMA, GDPR, and 21 CFR Part 11 compliant
- The data collected in the REDCap module will be linked to the ACSD and analyzed at the STS Research and Analytic Center.

## Current RedCap Forms include:

- Valve form for Collection of Devices Not Available in v4.20.2 Data Specifications Selection Set
  - This applies to devices implanted into the aortic, mitral, tricuspid, and pulmonic valve positions, as well as aortic valve composite grafts. The intent is to capture commercial valves and commercial valve conduits in this field.
- ACSD Voluntary Beta Blocker Project

# RedCap Forms

## Data Collection Forms (DCFs)

- [ACSD Voluntary Beta Blocker Annotated DCF - updated January 30, 2024](#)
- [Word Version - ACSD Voluntary Beta Blocker DCF - updated January 30, 2024](#)
- [REDCap Voluntary Beta Blocker Data Collection Link](#)
- [REDCap Form for Valve Devices Not Available in Version 4.20.2](#)

## Additional Resources - *Updated May 1, 2024*

- [Data Specifications v4.20.2](#)
- [Software Specifications v4.20.2](#)
- [Itemized Changes from v4.20.1 to v4.20.2](#)
- [Change Summary v4.20.2](#)
- [Itemized Changes v4.20.2](#)
- [Procedure Identification Chart \(ProclD\) - Updated November 2024](#)
- [Risk Model Variable Chart](#)
- [Risk Model Endpoint Chart - Updated February 2021](#)
- [Congenital Diagnoses and Procedure List](#)
- [Case Inclusion Guide - Updated January 2025](#)
- [NQF Endorsed Measures - Updated August 2021](#)
- [Navigation of RedCap Form Supplement \(updated May 1, 2024\)](#)

## Under Data Collection Forms

- **Links to the Valve and Beta Blocker Project RedCap forms on the Website**
- **These are also in the Training Manual**

## Under Additional Resources

- **Resource for Navigation of the RedCap**

**When entering Patient ID and Record ID in the RedCap form, please enter the STS Patient ID and the STS Record ID – this is the ID that starts with “V”.**

# Red Cap for Valve Implants

- For valve implants that are not included in the 4.20 DCF
- Currently undergoing a mapping project in order to add new implants to the dropdown list
  - Please check the data specs to make sure that the valve you are entering is indeed not in the valve drop down within the database
  - **NO** aortic grafts unless you are entering a valved conduit
  - To help with mapping for future upgrades to the Red Cap form for valve implants, please provide as much information as possible including:
    - model number
    - name of device
    - manufacturer
- FYI-some manufacturers have changed St. Jude Medical < Abbott, Sorin/Liva Nova < Corcym

## Data Collection Forms (DCFs)

- [ACSD Voluntary Beta Blocker Annotated DCF - updated January 30, 2024](#)
- [Word Version - ACSD Voluntary Beta Blocker DCF - updated January 30, 2024](#)
- [REDCap Voluntary Beta Blocker Data Collection Link](#)
- [REDCap Form for Valve Devices Not Available in Version 4.20.2](#)

## Additional Resources - Updated May 1, 2024

- [Data Specifications v4.20.2](#)





Navigating  
the STS  
Website:

## Surgeon Worksheets - Updated July 17, 2020

- [Aorta/Open Dissection Worksheet \[Word version\]](#)
- [Aorta/Endo Aneurysm Worksheet \[Word version\]](#)
- [Aorta/Endo Dissection Worksheet \[Word version\]](#)
- [Aorta/Endo Other Worksheet \[Word version\]](#)
- [Aorta/Open Aneurysm Worksheet \[Word version\]](#)
- [Aorta/Open Other Worksheet \[Word version\]](#)
- [Aortic Valve Surgeons Worksheet \[Word version\]](#)
- [Atrial Fibrillation Worksheet \[Word version\]](#)
- [CABG Worksheet \[Word version\]](#)
- [Intraoperative TEE Worksheet \[Word version\]](#)
- [Mitral Valve Worksheet \[Word version\]](#)
- [Tricuspid/Pulmonic Valve Worksheet \[Word version\]](#)

**Entries on the Data Collection Form, Surgeon Worksheets, and the Risk Calculator for data abstraction must be supported by documentation in the Medical Record for risk factors etc.**

- **If there are specific items filled out by perfusion, surgeon etc. that are found nowhere else in the Medical Record and the form is signed and in the Medical Record then this documentation is acceptable.**

## Additional Resources - Updated May 1, 2024

- [Data Specifications v4.20.2](#)
- [Software Specifications v4.20.2](#)
- [Itemized Changes from v4.20.1 to v4.20.2](#)
- [Change Summary v4.20.2](#)
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- [Case Inclusion Guide - Updated January 2025](#)
- [NQF Endorsed Measures - Updated August 2021](#)
- [Navigation of RedCap Form Supplement \(updated May 1, 2024\)](#)

> [Frailty Data Collection Resources](#)

On Hold

> Version 2.9

> Previous Versions

If you need assistance, contact the [Database Helpdesk](#) for data collection resources.

- **DM Training Session 2 will focus more on Data Specs, Software Specs and the Risk Model Variable Chart**
- **DM Training Session 3 will focus more on Case Inclusion Guide and Procedure ID Chart**
- **DM Training Session 5 will focus more on Process and Outcome measures**
- **DM Training Session 7 will focus more on RedCap forms**

# Additional Resources - Congenital Diagnoses and Procedure List

## Congenital Diagnosis By Category

- 10=PFO
- 20= ASD, Secundum
- 30= ASD, Sinus venosus
- 40= ASD, Coronary sinus
- 50= ASD, Common atrium (single atrium)
- 2150= ASD, Postoperative interatrial communication

## Congenital Procedures By Category

- |     |   |
|-----|---|
| ASD | <ul style="list-style-type: none"><li><input type="checkbox"/> 10= PFO, Primary closure</li><li><input type="checkbox"/> 20= ASD repair, Primary closure</li><li><input type="checkbox"/> 30= ASD repair, Patch</li><li><input type="checkbox"/> 40= ASD repair, Device</li><li><input type="checkbox"/> 2110= ASD repair, Patch + PAPVC repair</li><li><input type="checkbox"/> 50= ASD, Common atrium (single atrium), Septation</li><li><input type="checkbox"/> 60= ASD creation/enlargement</li><li><input type="checkbox"/> 70= ASD partial closure</li><li><input type="checkbox"/> 80= Atrial septal fenestration</li></ul> |
|-----|---|

**This resource is used to code congenital procedures when we have no selection for the procedure being done anywhere else on the ACSD DCF.**

- **For example, we have a field to code PFO under Other Cardiac Procedures in seq 4138. Code PFO in seq 4138 – do not code the congenital codes.**

Thank You!



**Please use the Q&A Function.**

**We will answer as many questions as possible.**

**We encourage your feedback and want to hear from you!**