New Data Managers Session

- *Melinda Offer, RN, MSN*

Learning Objectives:

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

- Identify STS Educational Resources
- Understand how to read the Data and Software Specifications
- Understand the Procedure ID Chart
- Identify resources within the National Harvest Report

LET THE GAMES BEGIN

"CAN'T CONGRESS SEE THAT WE HAVE DATA COLLECTION UNDER CONTROL?"

Data Manager Resources

STS Website

Webinars

Mentorship Program

Advances in Quality Outcomes Conference (AQO)

Database News newsletter

ACSD– Regional groups

The Society of Thoracic Surgeons

STS National Database   Donate to TSF   Search STS.org

Learning Center   Meetings   Quality & Safety   Registries   Research Center   Advocacy   Publications   Resources   COVID-19

STS National Database

STS National Database

Adult Cardiac Surgery Database

General Thoracic Surgery Database

Congenital Heart Surgery Database

Intermacs Database

Adult Cardiac   General Thoracic   Congenital Heart   Intermacs

The STS National Database was established in 1989 as an initiative for quality improvement and patient safety among cardiothoracic surgeons. The Database has four components, each focusing on a different area of cardiothoracic surgery

STS Public Reporting

View maps with the locations of STS National Database participants.

STS/ACC TVT Registry

Live Webinars

You are invited to participate in a series of live, monthly webinars to get an update on the exciting changes under way to the STS National Database. Registration is not required for the webinars, but you will need to sign in with your name and email address to participate.

The webinars will be recorded and available online within 48 hours from the STS National Database Webinars page.

Access FAQs   View Webinars

ACSD User Group Call

June 15 at 2:00 p.m. CT

Call in: 888-475-4499 or 877-853-5257 or 312-626-6799

Webinar ID: 338 714 200

International Dial-in Numbers

Join Webinar

▶ Past ACSD Webinars

The Society of Thoracic Surgeons

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STS » Registries

STS National Database

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- General Thoracic Surgery Database
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STS National Database

[Adult Cardiac] [General Thoracic] [Congenital Heart] [Intermacs]

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STS Composite Measure Series – Videos

A number of new quality enhancements will be implemented in late 2021 and early 2022. These include a new composite methodology for coronary artery bypass grafting, a multiprocedure composite for major adult cardiac surgery procedures, and a composite for pulmonary resection.
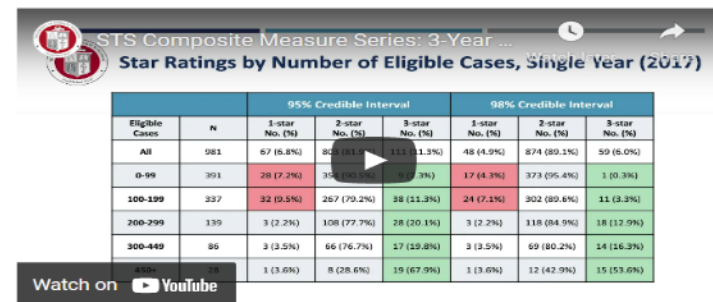
A series of webinars will help inform the Database community about these composite measures prior to their addition to harvest reports. Learn more.

This standalone webinar details how STS composite and process measures achieve their NQF-endorsed status through a multifaceted, multi-step process.

Adult Cardiac Surgery Database

STS Composite Measure Series: 3-Year CABG Composite for Adult Cardiac Surgery

This video details a new methodology for estimating composite performance scores and star ratings for isolated coronary artery bypass grafting. The update, which uses 3-year analytic data windows, will be implemented in late 2021 and early 2022 in the Adult Cardiac Surgery Database. Presenter: David M. Shahian, MD, Chair, STS Workforce on Quality (Read more in *The Annals of Thoracic Surgery*.)

STS Composite Measure Series: 3-Year ...
Star Ratings by Number of Eligible Cases, Single Year (2017)

Eligible Cases	N	95% Credible Interval			98% Credible Interval		
		1-star No. (%)	2-star No. (%)	3-star No. (%)	1-star No. (%)	2-star No. (%)	3-star No. (%)
All	981	67 (6.8%)	805 (81.9%)	111 (11.3%)	48 (4.9%)	874 (89.1%)	59 (6.0%)
0-99	391	28 (7.2%)	35 (90.5%)	9 (2.3%)	17 (4.3%)	373 (95.4%)	1 (0.3%)
100-199	337	32 (9.5%)	267 (79.2%)	38 (11.3%)	24 (7.1%)	302 (89.6%)	11 (3.3%)
200-299	139	3 (2.2%)	108 (77.7%)	28 (20.1%)	3 (2.2%)	118 (84.9%)	18 (12.9%)
300-449	86	3 (3.5%)	66 (76.7%)	17 (19.8%)	3 (3.5%)	69 (80.2%)	14 (16.3%)
450+	28	1 (3.6%)	8 (28.6%)	19 (67.9%)	1 (3.6%)	12 (42.9%)	15 (53.6%)

Watch on ▶ YouTube

STS Composite Measure Series: Multi-Procedure, Participant-Level Composite for Adult Cardiac Surgery

This video details a new multiprocedural composite performance measure for ACSD participants. This highly reliable measure aggregates data from up to eight surgical procedures

Frequently Asked Questions - FAQ

Ask a Question

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View maps with the locations of STS National Database participants.

Important Resources

STS IQVIA Go-Live Checklist

Database Transition Resource

Minor Data Requests for Quality Improvement

Data Manager Education

Harvest Schedule and Information

Database Forms

Merit-Based Incentive Payment System Reporting

Database Software and Vendors

Advances in Quality & Outcomes: A Data Managers Meeting

STS National Database News

Regional Database Activities

License the STS National Database Participant Logo

Audits

Contact Information

Adult Cardiac Multiplier Tables

Data Manager Education

ACSD Dashboard Overview

Data Manager Mentorship Program

List of Mortality Status Fields

Tips for Collecting 30-Day Follow-Up Data

STS/IQVIA Uploader Instructions

2020 AQO Online

2020 ACSD Data Manager Survey Results

2020 GTSD Data Manager Survey Results

2020 CHSD Data Manager Survey Results

2020 Intermacs Data Manager Survey Results

How-To Videos

IQVIA Registry Dashboard - General Navigation Training

IQVIA Uploader and DQR Review

▼ Anatomical Diagrams

Coronary Anatomy

Valve Anatomy

Valve Repairs

Aortic Aneurysm

Aortic Dissection

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STS National Database Mentorship Program

The Society has launched an STS National Database mentorship program that will pair experienced data managers with those who are seeking advice related to data abstraction. After filling out a questionnaire, potential mentors and mentees will be matched based on Database type, experience in specific areas, and other factors. STS will share contact information with mentors and mentees to facilitate an ongoing mentorship relationship.

To apply as either a mentor or mentee, please fill out the appropriate form linked below. You will be notified once you have been matched.

If you have questions about the program or any feedback on the sign-up forms, contact National Database Coordinator Adelaide Dolan.

Note: The opinions and advice provided through this mentorship program are those of its individual participants and do not necessarily reflect the views of The Society of Thoracic Surgeons.

**Apply to be a Mentor**   **Apply to be a Mentee**

Harvest Schedule and Information

Adult Cardiac Surgery Database - 2022

	Harvest Submission Window Close	Opt-Out Date	Includes Procedures Performed Through:	Report Posting	Comments
Harvest 1	2/25/2022	3/1/2022	12/31/2021	Spring 2021	Star Rating
Harvest 2	5/27/2022	6/1/2022	3/31/2022	Summer 2022	
Harvest 3	8/26/2022	8/30/2022	6/30/2022	Fall 2022	Star Rating
Harvest 4	11/18/2022	11/22/2022	9/30/2022	Winter 2022	

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

IQVIA Uploader and DQR Review
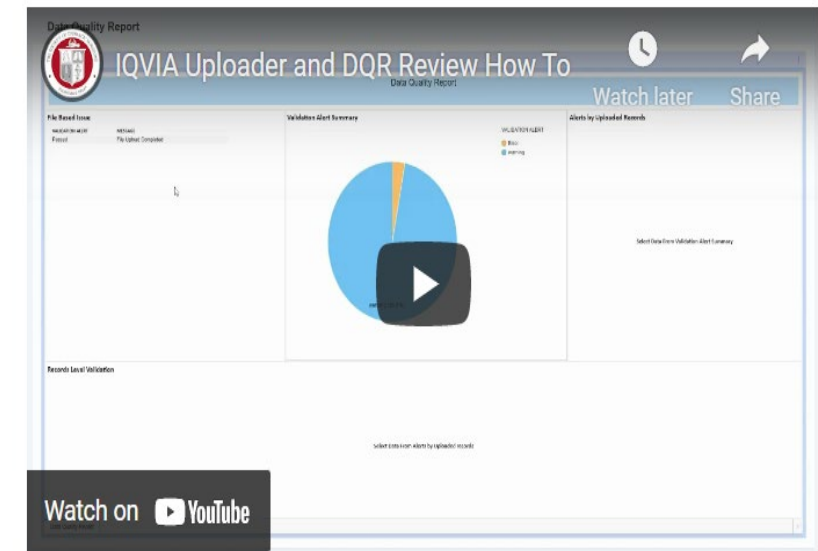
STS National Database Forms

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

- Annual educational meeting for Data Managers of the STS National Database.

- Objective to improve data abstraction and coding skills.

Database News Newsletter

May / June 2022
STS National Database News
ADULT CARDIAC

Do you have any colleagues who should be receiving *STS National Database News*? Fill out this form, and they will be added to the mailing list for future issues.

Don't Miss Today's User Group Call

Join your colleagues today at 2:00 p.m. CT for the latest updates, tips, and user discussions, as well as a Q&A session led by Database experts and surgeon leaders. Add a calendar reminder and join the Zoom call.

Master Revolutionary Techniques at Upcoming Cardiac Meetings

- The 2022 STS Coronary Conference, June 4–5 in Ottawa, ON, Canada, is quickly approaching, and it features 25 newly added abstracts presenting late-breaking research. There's still time to register and experience the most advanced training for coronary artery bypass grafting, presented by top-notch surgeons from across the globe. Register yourself and your team, and secure rooms at the Fairmont Château Laurier.

- The Database News newsletter is a newsletter dedicated to the STS National Database.

- Contains information on public reporting, data submission deadlines, meetings, and audits.

- The STS newsletter is available on the STS Data Manager Education page

sts.org
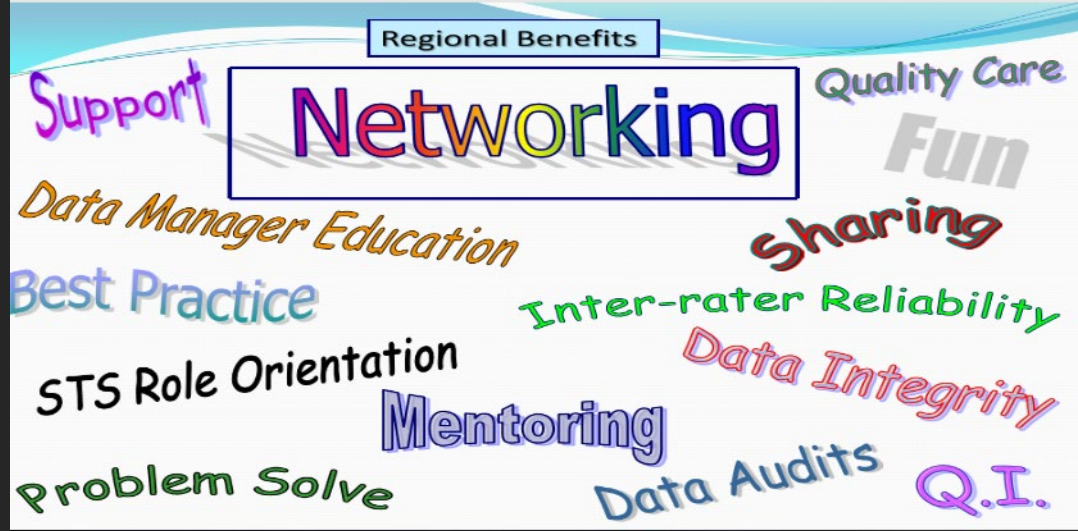
Regional Groups

Regional Database Activities

STS National Database regional groups offer a collaborative networking environment for peer-to-peer support and non-clinical guidance related to data abstraction.

Regional Group Status Chart

STS Regional Leader Roster

Currently, there are 18 regional groups covering 43 states:

STS Regional Data Manager Groups

California Cardiothoracic Surgery Collaborative — Established: 1996	Central Southeast Regional Group — Established: 2011
Florida Regional STS Data Managers Group — Established: 2006	Gulf States Regional Group — Established: 2007
Maryland Cardiac Surgery Quality Initiative — Established: 2013	MSTCVS Quality Collaborative Data Managers — Established: 2000
MidAtlantic CV Quality Managers Group — Established: 2015	Minnesota Regional Data Managers — Established: 1994
Missouri/Kansas Regional Group — Established: 2001	Nebraska/Iowa/Illinois Regional Group — Established: 2016
Northwest Region STS Data Managers — Established: 2018	Ohio Thoracic and Cardiovascular Data Management Group — Established: 2001
Rocky Mountain Regional STS Data Managers Group — Established: 1996	Southeastern Cardiothoracic Data User Group — Established: 2010
Southern New England Regional Data Mangers — Established: 2002	Texas Regional Data Managers Network — Established: 2010
Virginia Cardiac Services Quality Initiative — Established: 1998	Wisconsin Data Managers Group — Established: 1994

Audit Information

STS National Database

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General Thoracic Surgery Database

Congenital Heart Surgery Database

Intermacs Database

STS Public Reporting

STS/ACC TVT Registry

STS/ACC TVT Registry Public Reporting

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 at random for independent audits in 2021.

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.

Audit Instruction Letter

Instructional Video

The Society of Thoracic Surgeons

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View maps with the locations of STS National Database participants.

Data Collection

STS has compiled a training manual, data collection forms, and additional resources to aid in data collection for the Adult Cardiac Surgery Database. *(These require a login to the STS web portal. If you need assistance with your login credentials, contact STS Member services.)*

[Access Data Collection Resources (Login Required)]

STS National Database

- Adult Cardiac Surgery Database
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- Congenital Heart Surgery Database
- Intermacs Database

STS Public Reporting

STS/ACC TVT Registry

STS/ACC TVT Registry Public Reporting

Adult Cardiac Surgery Database Data Collection

The STS Adult Cardiac Surgery Database is currently operating under version 4.20.2. Data collection forms, training manuals, and additional resources are available to assist in data collection.

▶ Version 4.20

▶ Version 2.9

▶ Version 2.81

▶ Version 2.73

▶ Version 2.61

▶ Past Versions

Navigating the STS Website:

Data Collection Forms (DCF's)

Non-Annotated DCF

Annotated DCF

STS Training Manual

FAQ July 2020 - It is documented that my patient had a positive COVID-19 test in April 2020. What date do I enter into the database when I only have the month and year of the positive COVID-19 test?

Answer - If month and year are known code month/01/year. If only the year is known code 01/01/Year. Leave Blank if you have no information on the month, day, or year of the test.

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 weare looking for. The IgG is the antibody test, this is not the test we are looking for.

Navigating the STS Training Manual

Table of Contents

TS SCA Data Specifications v4.20.2

Data Collection Form fields:
Updated: June 2022

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mportant Information for ALL SITES!

dult Cardiac Homepage

ata Collection Resources (version specific abstraction documents)

sk an Abstraction Question

ata Manager Education

onthly Webinars

dvances in Quality and Outcomes: A Data Managers Meeting

erformance Measures (NQF Measures)

TS National Database News - Publication for STS Data Managers

Navigating the STS Website

Additional Resources - *Updated June 30, 2020*

- 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 (ProcID) - *Updated October 2020*

- Risk Model Variable Chart

- Risk Model Endpoint Chart - *Updated February 2021*

- Congenital Diagnoses and Procedure List

- Case Inclusion Guide

- NQF Endorsed Measures - *Updated August 2021*

Software Specifications – page 4

Surgery date	Data Specifications
Any dates up to December 31, 1999	Data converted to 2.35 format
January 1, 2000 through December 31, 2001	2.35
January 1, 2002 through June 30, 2002	2.35 or 2.41
July 1, 2002 through December 31, 2003	2.41
January 1, 2004 through December 31, 2004	2.41 or 2.52.1
July 1, 2004 through June 31, 2007	2.52.1
July 1, 2007 through December 31, 2007	2.52.1 or 2.61
January 1, 2008 through June 30, 2011	2.61
July 1, 2011 through June 30, 2014	2.73
July 1, 2014 through June 30, 2017	2.81
July 1, 2017 through June 30, 2020	2.9
July 1, 2020 through current date	4.20.2

- Important Resource to be familiar with

- Dates of Versions

H. Format – The format in which the values for the field should be collected. The options for this field are:

- Date - mm/dd/yyyy: Date values only with the month specified as a 2-digit numeric value, day specified as a 2-digit numeric value, and year specified as a 4-digit numeric value.
- Time - hh:mm (24-hour clock): Time values only with the hours specified as a 2-digit numeric value (in 24-hour format), and the minutes specified as a 2-digit numeric value.
- Date/Time - mm/dd/yyyy hh:mm : Date and time values in one field with the month specified as a 2-digit numeric value, day specified as a 2-digit numeric value, and year specified as a 4-digit numeric value, followed by a single space and then the hours specified as a 2-digit numeric value (in 24-hour format), and the minutes specified as a 2-digit numeric value.
- Integer: Numeric values with no decimal points.
- Real: Numeric values with at least one decimal point.
- Text: Value can contain any alphanumeric characters.
- Text (categorical values specified by STS): Values displayed to the user are the text descriptions defined in the data specifications table. The values submitted to the Data Warehouse are the Harvest Codes defined in the data specifications.
- Text (categorical values specified by user): Values displayed to the user and submitted to the Data Warehouse come from a list maintained by the user (see item "e" under the "3. Data Entry" section of the "Software Specification" below).

I. DataSource – This field defines how the data is entered into the field. The options for this field are as follows (note, in some cases, there is more than one option for data source, such as "User or Calculated"):

  - User – The user enters the value, otherwise it is left missing (null).
  - Automatic – The software automatically inserts a value for every record. This is usually assigned to administrative fields that must contain a value, such as the DataVrsn field.

Software Specifications – page 6

Describes how to read Data Specs

Software Specs – page 11

- Record ID - unique numeric value that identifies the record in the database.

- Generated Software site by the STS. The codes will be in a format similar to "V01".

- For example - V01000001

b. Record identification number (RecordID): The RecordID field contains a unique numeric value that identifies the record in the database. This is an arbitrary number and must not be a value that could identify the patient, such as Social Security Number, Medical Record Number, etc. Once attached to a specific record, the value can never be changed, nor can it be reused if the record is deleted. The data warehouse uses the RecordID field to communicate record-specific data quality issues to the participants. Because of this, users must be able to select cases from their database for review using this field and the field must be labeled "RecordID" on the data entry screen. See also the special considerations necessary for this field when importing data from another database in the "Data Import" section, below.

Beginning with version 2.73 of the data specifications, the values generated by the software for the RecordID field must be a combination of a vendor specific code followed by an alphanumeric value that makes the identifier unique. The vendor-specific code will consist of three characters and will be assigned to each vendor and Participant Generated Software site by the STS. The codes will be a format similar to "V01". For example, the software will generate a RecordID value of V01000001 for the first record and V01000002 for the second record. The purpose of this feature is to allow sites to move their data from one version of a software package to another, or from one vendor package to another, and maintain the referential integrity of their data records.

Together, the ParticID and the RecordID will affect a composite key, which is unique to each record throughout the national STS database.

Software Specs – page 14

- Points out what data can be imported into Vendor Data Form

- ADT Tool

- Reason we can't import more data is because of the importance of the data managers eyes on the data, the limitations of informatics on writing the correct code, especially when there are changes in definitions and between EMR versions and vendors

4. Importing data from other data sources

Although the data many participants are entering into their STS certified software may be gathered from another electronic data system at their site (such as an EMR), it is strictly against STS policy for vendors to provide the users with the means to import this data automatically. It is not practical for the STS to certify the mapping of data from each site's EMR to the STS data specifications, which would be required to ensure the integrity of the overall STS database.

There are only two exceptions to this policy:

- Unique Device Identification (UDI) numbers can be imported from devices such as barcode readers. This applies to the following fields:
  - Valve Explant Unique Device Identifier (UDI) [ValExpUDI]
  - Second Valve Explant Device Unique Device Identifier (UDI) [ValExpDevUDI]
  - VS-Aortic Proc-Imp - Unique Device Identifier (UDI) [VSAoImUDI]
  - VS-Mitral Proc-Imp-Unique Device Identifier (UDI) [VSMiImUDI]
  - VS-Tricuspid Proc-Imp-Unique Device Identifier (UDI) [VSTrImUDI]
  - Previous VAD Unique Device Identifier (UDI) [PrevVADUDI]
  - VAD-Implant Unique Device Identifier (UDI) [VImpUDI]
  - VAD-Implant Unique Device Identifier (UDI) #2 [VImpUDI2]
  - VAD-Implant Unique Device Identifier (UDI) #3 [VImpUDI3]
  - Other Card-Atrial Appendage Ligation/Exclusion UDI [OCarAAUDI]
- The following demographic data fields can be imported from an Admission/Discharge/Transfer (ADT) system:

LongName	ShortName
Patient Last Name	PatLName
Patient First Name	PatFName
Patient Middle Name	PatMName
Date of Birth	DOB
Patient Age	Age

Software Specs – page 16

5. Field dependencies

Field dependencies exist where one field (the "parent" field) controls whether or not one or more other fields (the "child" fields) can contain data. Child fields are indicated in the specifications by having their immediate parent field named in the "Parent Field" section of their specification. For example, "Cerebrovascular Disease" is a parent field to its child "Prior CVA". The following guidelines must be followed to handle dependent fields:

a. If the data value of a parent field indicates that no data should be in its dependent fields, then those dependent fields should be unavailable on the data entry screen. In the example above, only if "Cerebrovascular Disease"= "Yes" should "Prior CVA" be available for data entry.

b. If a parent field indicates that no data should be in its dependent field, vendors must set all child fields to Null. **Note that in prior versions of the Software Specifications, vendors had the option of setting child field values to "No" provided those fields were set to Null during data extract. This has caused parent/child issues to appear in site data, so this practice is no longer acceptable.**

c. If a parent field is originally set to "Yes", then values can be entered into its child fields. If the record is subsequently edited by the user and the parent value is changed to "No", **the values in the child fields must be automatically changed to Null.**

d. Reporting on missing data values needs to be handled differently in dependent (child) fields, since its meaning depends upon the data value of the parent field. See "Data quality and completeness checks" below for a full description of how this should be handled.

- **Parent Child Relationships**

Software Specs – page 26

- Meld Score Calculation – system calculation must have INR, Total Bili, and Creatinine to calculate

Appendix A: Calculation of MELD scores:

Starting with version 2.73, software must be able to calculate the MELD score for each patient. The results from this calculation are entered by the software into the field RF-MELD Score (MELDScr). The value of this score is calculated using the values entered by the user into the three fields "RF-Total Bilirubin" (TotBlrbn), "RF-INR" (INR), and "RF-Last Creat Level" (CreatLst). The patient's dialysis status (RF-Renal Fail-Dialysis) is also considered in the calculation.

The calculation can be made by creating a "factor" for each of the three variables involved in the score. The value of the variable is used to determine the value of the factor. The factors are then used in a formula to determine the MELD score. The algorithm for determining the value of each factor is as follows:

If RF-Total Bilirubin is >0 and <=1 then bilirubin_factor = 1
otherwise, if RF-Total Bilirubin is >1, then bilirubin_factor = the specified RF-Total Bilirubin value.

If RF-INR is >0 and <=1 then inr_factor = 1
otherwise, if RF-INR is > 1, then inr_factor = the specified RF-INR value.

if RF-Renal Fail-Dialysis=Yes, then creatinine_factor = 4
otherwise, if RF-Last Creat Level is >0 and <=1 then creatinine_factor = 1
    otherwise, if RF-Last Creat Level is >1 and <=4, then creatinine_factor = the RF-Last Creat Level value
        otherwise, if RF-Last Creat Level is >4, then creatinine_factor = 4

After determining the three factors, the calculation is done using the formula:

MELDScr = (3.8 x Ln([bilirubin_factor])) + (11.2 x Ln([inr_factor])) + (9.6 x Ln([creatinine_factor])) + 6.4

Note that "Ln" refers to the mathematical "natural log" function.

No score should be calculated if any of the following conditions are true:
- RF-Total Bilirubin is missing

Software Specs – page 27

Appendix C: Calculation of Total Postoperative Initial Ventilation Hours

Starting with v4.20.2, software must be able to calculate the Total Postoperative Initial Ventilation Hours. The results of this calculation are entered by the software into the field "Total Postoperative Initial Ventilation Hour" (TotalPOInitVentHr). The value of this field is calculated by finding the number of **hours between "OR Exit Date and Time" (ORExitDT) and "Initial Extubation Date And Time" (ExtubateDT).** ~~Value should be stored in decimal format with at least two decimal places. This value is zero for patients extubated in OR or not intubated for procedure (ExtubOR = Yes or N/A (not intubated)).~~

- If either ORExitDT or ExtubateDT are missing, TotalPOInitVentHr is left missing.
- The difference between ORExitDT and ExtubateDT must not be rounded.
- If ExtubOR="Yes" or "N/A", TotalPOInitVentHr must be set to zero.
- Final calculation should include at least two decimal places.

Software Specs – page 29

Appendix F: Field ShortName and SeqNo by DataVrsn.

The following table lists all fields that have been collected in the STS Adult CV Database since 1999. The sequence number (SeqNo) of each field for a given version of the specifications is specified under the version number. If no sequence number is specified, the field was not a Core field for that version of the specifications.

ShortName	2.35	2.41	2.52.1	2.61	2.73	2.81	2.9	4.20.2
AbxDisc				1347	2730	2290	2290	2290
AbxSelect				1345	2710	2280	2280	2280
AbxTiming				1346	2720	2285	2285	2285
AddIntraopPAnti						2295	2295	
ADevDelMeth01							5455	5455
ADevDelMeth02							5480	5480
ADevDelMeth03							5505	5505
ADevDelMeth04							5530	5530
ADevDelMeth05							5555	5555
ADevDelMeth06							5580	5580
ADevDelMeth07							5605	5605
ADevDelMeth08							5630	5630
ADevDelMeth09							5655	5655
ADevDelMeth10							5680	5680
ADevDelMeth11							5705	5705
ADevDelMeth12							5730	5730
ADevDelMeth13							5755	5755

Appendix F: Field Short Name and Seq Number by Data Version

Data Specifications

Long Name:	RF-Renal Fail-Dialysis
Short Name:	Dialysis
Section Name:	Risk Factors
DBTableName	Adultdata2

SeqNo: 375

Core: Yes

Harvest: Yes

Definition: Indicate whether the patient is currently (prior to surgery) undergoing dialysis.

Data Source: User

Format: Text (categorical values specified by STS)

Harvest Codes:

Code:	Value:
1	Yes
2	No
3	Unknown

- Integer: Numeric values with no decimal points.
- Real: Numeric values with at least one decimal point.
- Text: Value can contain any alphanumeric characters.

Long Name:	INR		*SeqNo:*	615
Short Name:	**INR**		*Core:*	Yes
Section Name:	Risk Factors		*Harvest:*	Yes
DBTableName	Adultdata2			

Definition: Indicate the International Normalized Ratio (INR) closest to the date and time prior to surgery but prior to anesthetic management (induction area or operating room).

Data Source: User

Format: Real

Low Value: 0.50   High Value: 30.00   UsualRangeLow: 0.90   UsualRangeHigh: 1.30
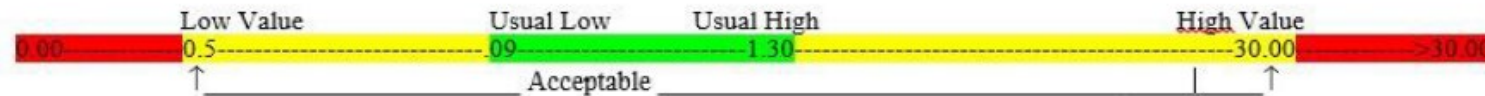
- Integer: Numeric values with no decimal points.
- Real: Numeric values with at least one decimal point.
- Text: Value can contain any alphanumeric characters.

Data Specifications - Parent Child Relationship

Diabetes: ☐ Yes ☐ No ☐ Unknown (If Yes →) Diabetes-Control: ☐ None ☐ Diet only ☐ Oral ☐ Insulin ☐ Other SubQ ☐ Other ☐ Unknown

Diabetes (360)   DiabCtrl (365)

Long Name: RF-Diabetes-Control   SeqNo: 365

Short Name: **DiabCtrl**   Core: Yes

ParentShortName: Diabetes

ParentLongName: RF-Diabetes

ParentHarvestCodes: 1

ParentValues: = "Yes"

Procedure ID Chart – Analyzed Cases

- **Isolated Coronary Artery Bypass (CAB)**
- **Isolated Aortic Valve Replacement (AV Replace)**
- **Isolated Mitral Valve Replacement (MV Replace)**
- **Aortic Valve Replacement + CAB (AV Replace + CAB)**
- **Mitral Valve Replacement + CAB (MV Replace + CAB)**
- **Aortic Valve Replacement + Mitral Valve Replacement (AV Replace + MV Replace)**
- **Isolated Mitral Valve Repair (MV Repair)**
- **Mitral Valve Repair + CAB (MV Repair + CAB)**

Need to have DCF with Seq Numbers to read this chart

PART 1 (PROCID 1 through 4)				
Variable Short Name/Seq #	**Isolated CAB (ProcID=1)**	**Isolated AVR (ProcID=2)**	**Isolated MVR** ** **(ProcID=3)**	**AVR + CAB (ProcID=4)**
OpCAB/2120	• Yes, planned • Yes, unplanned due to unsuspected disease or anatomy	• No • Yes, unplanned due to surgical complication • Missing	• No • Yes, unplanned due to surgical complication • Missing	• Yes, planned • Yes, unplanned due to unsuspected disease or anatomy
OpCAB	OpCAB in(3,5)	OpCab in (NULL, 2,4)	OpCab in (NULL, 2,4)	OpCAB in(3,5)
OpValve/2129	<Not used in this calculation>	• Yes	• Yes	• Yes
OpValve		Opvalve eq 1	Opvalve eq 1	Opvalve eq 1
VSAV/2131	• No • Yes, unplanned due to surgical complication • Missing	• Yes, planned • Yes, unplanned due to unsuspected disease or anatomy	• No • Yes, unplanned due to surgical complication • Missing	• Yes, planned • Yes, unplanned due to unsuspected disease or anatomy
VSAV	VSAV in (NULL, 2,4)	VSAV in (3,5)	VSAV in (NULL, 2,4)	VSAV in (3,5)
VSAVPr/3395	<Not used in this calculation>	Replacement	<Not used in this calculation>	Replacement
VSAVPr		VSAVPr eq 1		VSAVPr eq 1
VSMV/2133	• No • Yes, unplanned due to surgical complication • Missing	• No • Yes, unplanned due to surgical complication • Missing	• Yes, planned • Yes, unplanned due to unsuspected disease or anatomy	• No • Yes, unplanned due to surgical complication • Missing
VSMV	VSMV in (NULL, 2,4)	VSMV in (NULL, 2,4)	VSMV in (3,5)	VSMV in (NULL, 2,4)
VSMVPr/3500	<Not used in this calculation>	<Not used in this calculation>	• Replacement	<Not used in this calculation>
VSMVPr			VSMVPr eq 2	
OCarCongProc1/ 6515	• Missing • PFO, Primary closure • Anomalous origin of coronary artery from pulmonary artery repair • Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	• Missing • PFO, Primary closure	• Missing • PFO, Primary closure • ASD repair, Primary closure • ASD repair, Patch	• Missing • PFO, Primary closure • Anomalous origin of coronary artery from pulmonary artery repair • Anomalous aortic origin of coronary artery from aorta (AAOCA) repair
OCarCongProc1	Ocarcongproc1 in (NULL,10,1291,1305)	Ocarcongproc1 in (NULL,10)	Ocarcongproc1 in (NULL,10,20,30)	Ocarcongproc1 in (NULL,10,1291,1305)

Page 1 with 4 categories – scroll down to see how other procedures effect the category

The Gray lines are programming lingo and can be ignored. Focus on the white rows

On this slide you have procedures that effect all 4 categories and others that effect individual categories

SEQ 4191 A-fib Lesion location that is used in the Isolated CAB, Isolated AVR, and Isolated CAB AVR calculation, however it is not used in the Isolated MVR calculation

Green Highlights changes from V 2.9 to 4.2

	• No			
	• Missing			
VExp2	VExp2 in (NULL, 3, 2)			
VExp3/3985	• Yes, not during this procedure • No • Missing			
VExp3	VExp3 in (NULL, 3, 2)			
OCarLVA/4054	• No • Missing			
OCarLVA	OCarLVA in (NULL, 2)			
OCarAcqVSD/4131	• No • Missing			
OCarAcqVSD	OCarVSD in (NULL, 2)			
AortProc/2123	• No • Yes, unplanned due to surgical complication • Missing			
AortProc	Aortproc in (NULL, 2,4)			
EndovasProc/5066	• No • Missing			
EndovasProc	EndovasProc in (NULL, 2)			
OCarAFibLesLoc/4191	• Epicardial • None • Missing	• Epicardial • None • Missing	<Not used in this calculation>	• Epicardial • None • Missing
OCarAFibLesLoc	OCarAFibLesLoc not in(2,3)	OCarAFibLesLoc not in(2,3)		OCarAFibLesLoc not in(2,3)
OCardASDRep/4136	• No • Missing	• No • Missing	<Not used in this calculation>	• No • Missing
OCardASDRep	OCardASDRep in (NULL, 2)	OCardASDRep in (NULL, 2)		OCardASDRep in (NULL, 2)
OCarACD/4055	<Not used in this calculation>	<Not used in this calculation>	• None • Missing • Pacemaker	<Not used in this calculation>
OCarACD			OCarACD in (NULL, 1, 2)	
OCarACDLE/	• Yes, unplanned due to surgical complication			

OCTumor/4115	• No
	• Missing
OCTumor	OCTumor in (NULL, 1)
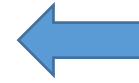
Other Cardiac Tumor SEQ 4115

On PROC ID Chart
- No – this means if you code No to this field then the procedure will stay isolated.
- Missing- this means if you leave this field missing then the procedure will stay isolated.

https://youtu.be/2-vH1cCiCts

Additional Resource: Risk Model Variable Chart

- Shows you the variables that are in each Risk Model

- The purpose of risk adjustment is to allow STS database participants to compare their performance with other participants (e.g., overall STS, like participants, region or state). By accounting for and controlling patient risk factors that are present prior to surgery, risk adjustment "levels the playing field" as best as possible.

CABG	Operative Mortality	Stroke	Renal Failure	Prolonged Ventilation	Deep Stern Inf	Reop	Mortality/ Morbidity	Length of Stay>14	Length of Stay<6
B. Demographics									
Age (70)	X	X	X	X	X	X	X	X	X
Gender (75)	X	X	X	X	X	X	X	X	X
RaceBlack (160)	X	X	X	X	X	X	X	X	X
RaceAsian (165)		X	X	X	X	X	X	X	X
Ethnicity (185)		X	X	X	X	X	X	X	X
RaceNativeAm (170)			X	X	X	X	X	X	X
RacNativePacific (175)			X	X	X	X	X	X	X
C.Hospitalization									
SurgDt (310)			X	X	X	X	X	X	X
PayorPrim (291) →	X	X	X	X	X	X	X	X	X
PayorSecond (293) →	X	X	X	X	X	X	X	X	X
D. Risk Factors									
WeightKg (335)	X	X	X	X	X	X	X	X	X
HeightCm (330)	X	X	X	X	X	X	X	X	X
Diabetes (360)	X	X	X	X	X	X	X	X	X
DiabCtrl (365)	X	X	X	X	X	X	X	X	X
Hct (575)	X	X	X	X	X	X	X	X	X
WBC (565)	X	X	X	X	X	X	X	X	X
Platelets (580)	X	X	X	X	X	X	X	X	X
CreatLst (585)	X	X	X	X	X	X	X	X	X
Dialysis (375)	X	X	X	X	X	X	X	X	X
Hypertn (380)		X	X	X			X		X
InfEndTy (840)					X				

CABG	Operative Mortality	Stroke	Renal Failure	Prolonged Ventilation	Deep Stern Inf☐	Reop	Mortality/ Morbidity	Length of Stay>14	Length of Stay<6
InfEndo (385)									
ChrLungD (405)	X	X	X	X	X		X	X	X
ImmSupp (490)	X		X	X	X		X	X	X
PVD (505)	X	X	X	X	X	X	X	X	X
CVD (525)	X	X	X	X			X	X	X
CVA (530)	X	X	X	X			X	X	X
CVAWhen (535)	X	X	X	X			X	X	X
CVDTIA (540)	X	X	X	X			X	X	X
CVDStenRt (550)	X	X	X	X			X	X	X
CVDStenLft (555)	X	X	X	X			X	X	X
CVDPCarSurg (560)	X	X		X			X		X
IVDrugAb (470)				X		X		X	X
Alcohol (480)	X	X	X	X	X	X	X	X	X
Pneumonia (465)			X	X			X	X	
MediastRad (495)	X			X			X	X	X
Cancer (500)		X							
TobaccoUse (400)			X	X	X		X	X	X
FHCAD (355)		X	X	X			X	X	X
HmO2 (450)	X			X			X	X	X
SlpApn (460)		X		X			X		X
LiverDis (485)	X		X	X		X	X	X	X
UnrespStat (520)	X	X		X			X		
Syncope (515)	X			X		X	X		X
E. Previous Interventions									
PrCAB (670)	X		X	X	X	X	X	X	X
PrValve (675)			X	X	X	X	X	X	X
PrValveProc1 (695)				X		X	X	X	X

CABG	Operative Mortality	Stroke	Renal Failure	Prolonged Ventilation	Deep Stern Inf	Reop	Mortality/ Morbidity	Length of Stay>14	Length of Stay<6
PrValveProc2 (700)				X		X	X	X	X
PrValveProc3 (705)				X		X	X	X	X
PrValveProc4 (710)				X		X	X	X	X
PrValveProc5 (715)				X		X	X	X	X
POC (805)			X	X	X			X	X
POCInt1 (810)		X	X	X	X		X	X	X
POCInt2 (815)		X	X	X	X		X	X	X
POCInt3 (820)		X	X	X	X		X	X	X
POCInt4 (825)		X	X	X	X		X	X	X
POCInt5 (830)		X	X	X	X		X	X	X
POCInt6 (835)		X	X	X	X		X	X	X
POCInt7 (840)		X	X	X	X		X	X	X
pocpci (775)	X		X			X			X
pocpciwhen (780)	X		X			X	X		X
pocpciin (800)	X		X			X	X		X
PrCVInt (665)			X	X		X	X		
F. Preoperative Cardiac Status									
MIWhen (890)	X	X	X	X			X	X	X
HeartFailTmg (912)	X	X	X	X	X	X	X	X	X
ClassNYH (915)	X	X	X	X	X	X	X	X	X
CardSympTimeOfAdm (895)	X		X	X		X	X	X	X
CarShock (930)	X		X	X		X	X	X	X
ArrhythAtrFib (961)	X	X	X	X	X	X	X	X	X
ArrhythAFib (962)	X	X	X	X	X	X	X	X	X
ArrhythAFlutter (960)	X	X	X	X	X	X	X	X	X

CABG	Operative Mortality	Stroke	Renal Failure	Prolonged Ventilation	Deep Stern Inf	Reop	Mortality/ Morbidity	Length of Stay>14	Length of Stay<6
ArrhythSecond (965)	X			X	X	X	X	X	X
ArrhythSSS (955)	X			X	X	X	X	X	X
ArrhythVV (950)	X			X		X	X	X	X
G. Preoperative Medications									
MedInotr (1130)	X	X	X	X			X	X	X
MedADP5Days (1060)	X	X	X	X		X	X	X	X
MedADPIDis (1065)	X	X	X	X		X	X	X	X
MedSter (1143)	X	X	X	X		X	X	X	X
MedGP (1073)	X	X	X	X		X	X	X	X
Resusc (935)	X	X	X	X	X	X	X	X	X
medacei48 (1020)				X					
H. Hemodynamics and Cath									
NumDisV (1170)	X	X	X	X	X	X	X	X	X
PctStenLMain (1195)	X			X		X	X		
HDEF (1545)	X	X	X	X		X	X	X	X
PctStenPro□LAD (1215)		X					X	X	X
VDStenA (1600)	X					X			
VDStenM (1690)	X		X					X	
VDInsufA (1590)	X	X	X	X		X	X	X	X
VDInsufM (1680)	X		X	X		X	X		X
VDInsufT (1775)	X		X	X		X	X	X	X
VDAoPrimEt (1646)									
I. Operative									
Incidenc (1970)	X		X	X	X	X	X	X	X
Status (1975)	X	X	X	X	X	X	X	X	X

CABG	Operative Mortality	Stroke	Renal Failure	Prolonged Ventilation	Deep Stern Inf☐	Reop	Mortality/ Morbidity	Length of Stay>14	Length of Stay<6
K. Valve Surgery									
VSTrRepair (3646)					X				
L. Mechanical Cardiac Assist Devices									
IABPWhen (3730)	X		X	X	X	X	X	X	X
CathBasAssistWhen (3760)	X		X	X		X	X	X	X
ECMOWhen (3780)	X		X	X		X	X	X	X

Additional Resources - Congenital Diagnoses and Procedure List

Congenital Procedures By Category

ASD
- ☐ 10= PFO, Primary closure
- ☐ 20= ASD repair, Primary closure
- ☐ 30= ASD repair, Patch
- ☐ 40= ASD repair, Device
- ☐ 2110= ASD repair, Patch + PAPVC repair
- ☐ 50= ASD, Common atrium (single atrium), Septation
- ☐ 60= ASD creation/enlargement
- ☐ 70= ASD partial closure
- ☐ 80= Atrial septal fenestration
- ☐ 85= Atrial fenestration closure

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 commu

Additional Resources – Case Inclusion Guide

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

STS Adult Cardiac Database Inclusion Document

General information – This document is provided to sites to assist in procedure inclusion. **It is not an all-inclusive list. If** your procedure can not be found on the list, please send in a FAQ to determine if the procedure should be included in the Database.

Required Cases in- conjunction with other CV surgery or stand-alone procedure.

1. CABG

2. Valve to include:
   - Aortic valve repair, surgical
   - Aortic valve replacement, surgical
   - Mitral valve commissurotomy, surgical
   - Mitral valve repair, surgical
   - Mitral valve replacement, surgical
   - Tricuspid valve repair, surgical
   - Tricuspid valve replacement, surgical
   - Tricuspid valvectomy
   - Pulmonary valve repair, surgical
   - Pulmonary valve replacement, surgical
   - Pulmonary valvectomy
   - Prosthetic valve repair

3. Aorta - starting above diaphragm, includes dissections to include:
   - Aortic procedure, arch
   - Aortic procedure, ascending
   - Aortic procedure, descending
   - Aortic procedure, root
   - Aortic procedure, thoracoabdominal
   - Aortic Procedure, TEVAR

Additional Resources – NQF Measures

Process Measures:
Preoperative beta blockade therapy
Use of IMA
Discharge anti-platelet medication
Discharge beta blockade therapy
Discharge anti- lipid medication

Outcomes Measures:
Post-op Renal Failure
Surgical Re-exploration
Operative Mortality for CABG
Prolonged Ventilation
Deep Sternal Wound Infection
Stroke/Cerebrovascular Accident

Report Overview
STS NQF-endorsed Measures

Title	Description	Numerator	Denominator	Exclusions
Anti-Lipid Treatment at Discharge	Percent of patients aged 18 years and older undergoing isolated CABG who were discharged on a lipid-lowering statin *NOTE: Beginning with data version 2.81 only statins are considered for this measure.*	Number of patients undergoing isolated CABG who were discharged on a lipid-lowering statin Number of isolated CABG procedures in which: Discharge statin medication (DCLipLowStat) is marked "yes"	All patients undergoing isolated CABG according to STS Procedure Identification algorithm	Cases are removed from the denominator if there was an in-hospital mortality or if discharge anti-lipid treatment was contraindicated. Mortality Discharge Status (MtDCStat/ DischMortStat), Mortality Date (MtDate), and Discharge Date (DischDt) indicate an in-hospital mortality; Discharge statin medication (DCLipLow Stat) is marked as "contraindicated" **Version 4.20.2** Cases are removed from the denominator if there was an in-hospital mortality or Lipid Lowering Statin (DCLipLowStat) is marked contraindicated OR the patient was discharged to Hospice OR the patients discharge location is Left AMA. Expired In OR (ExpiredInOR), Mortality Discharge Status (DischMortStat), Mortality Date (MtDate), and Discharge Date (DischDt) indicate an in-hospital mortality. Discharge Lipid Lower Statin (DCLipLowStat) is marked 'contraindicated' OR Discharge location (DisLoctn) is' Left AMA' OR Discharge Status (DischMortStat) is Discharged to Hospice

Additional Resources – Surgeon Worksheets

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]

Additional Resource – National Report Analysis Overview

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

DATA ANALYSES OF THE SOCIETY OF THORACIC SURGEONS NATIONAL ADULT CARDIAC SURGERY DATABASE

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- Reports are published following each quarterly database harvest and the report is provided to each eligible STS database participant.

Report Overview
Reporting Levels
Participant's Region
Overview of Risk-Adjusted Results
Model Endpoints
Handling of Missing Data
OE Ratio Interpretations
Star Rating
NQF Measures

Additional Resources ACSD Analysis Overview

It is important to understand how missing data values are handled when the STS risk-adjustment models are applied to patients with incomplete data. With the exception of age, missing data values are imputed by assigning a likely substitute value. The algorithm used for missing data imputation is described below:

Required variable: Age is the only required variable for all models. If it is missing, no value for predicted risk will be calculated.

Categorical variables: Missing data are generally assumed to have the lowest risk category. For example, if diabetes was not coded, it would be assumed to be "No"; if procedure priority were not coded, the procedure would be assumed to be "Elective." In most cases, the lowest risk category is also the most frequent. If gender is missing, Male gender (the most frequent) is imputed.

20 – OV General

Ejection Fraction (EF)	If EF is missing or <10%:
	CABG Model
	If HeartFailTmg is Chronic or missing and gender is Male, set EF = 55%
	If HeartFailTmg is Chronic or missing and gender is Female, set EF = 58%
	If HeartFailTmg is Acute or Both and gender is Male, set EF = 40%
	If HeartFailTmg is Acute or Both and gender is Female, set EF = 45%

Update June 2021 – In the Risk Model, EF values that are less than 10% get imputed to 40%. If your patient has an EF value < 10% enter the EF as 10% in the Database

Complete Chart found in Analysis Overview – page 16-17

Mortality Risk-Adjustment

Outcome		My Site 2019	My Site 2020	My Site 2021*	Like Group 2...	Region 2021	STS 2021
In-hospital Mortality	OR (95% CI) ← **Odds Ratio**	0.56 (0.30-1.05)	0.65 (0.35-1.20)	0.78 (0.39-1.55)	1.08 (0.89-1.30)	0.93 (0.74-1.17)	1.00 ← **STS Eve**
OE Ratio →	O/E (95% CI)	0.30 (0.08-0.85)	0.47 (0.15-1.15)	0.00 (0.00-1.71)	0.97 (0.83-1.11)	0.91 (0.71-1.16)	1.00
	Risk-adjusted Rate (95% CI) ← **Risk Adjusted Rate**	0.87%	0.00% (0.00-3....	1.96% (1.69-2....	1.85% (1.44-2....	2.03%
	Observed Rate	-	-	-	-	2.02%	1.99%
Operative Mortality	OR (95% CI)	0.59 (0.34-1.03)	0.73 (0.43-1.24)	0.92 (0.50-1.73)	1.06 (0.90-1.26)	0.89 (0.72-1.10)	1.00
	O/E (95% CI)	0.39 (0.14-0.89)	0.62 (0.27-1.22)	0.73 (0.13-2.49)	0.95 (0.83-1.07)	0.86 (0.69-1.07)	1.00
	Risk-adjusted Rate (95% CI)	0.86%	1.52%	1.94% (0.34-6....	2.51% (2.20-2....	2.29% (1.83-2....	2.66%
	Observed Rate	-	-	-	-	2.58%	2.65%

Comparison of O/E Ratio and Odds Ratio →

Because each of these statistics has its advantages, the STS has decided to provide both in the report.

• OE Ratio: The benefit of O/E Ratios is that they are familiar to many surgeons and are simple to compute using an STS-certified software package.

• OR Ratio: The main benefit of Odds Ratios obtained from hierarchical models is that they provide a more reliable estimate of performance for hospitals with a small number of patients.

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O/E Ratio – The Simplified Version

The following table illustrates the possible interpretations of the O/E Ratio.

Table 11. O/E Ratio Interpretations*

Statistic	Interpretation
O/E Ratio > 1	When the O/E Ratio is greater than 1, the participant had an observed outcome level that was greater than expected. The participant performed worse than expected.
O/E Ratio < 1	When the O/E Ratio is less than 1, the participant had an observed outcome level that was less than expected. The participant performed better than expected.
O/E Ratio = 1	When the O/E Ratio is 1, the participant had an observed outcome level equal to expected. The participant performed as expected.

Observed is your site compared to the expected which is computed using the risk models on all sites data.

The interpretations in this table can also be roughly extended to Odds Ratios - values less than 1 imply better than average performance, values of 1 imply average performance and values over 1 imply worse than average performance. Note that the Odds Ratio will generally be closer to 1.0 than the O/E Ratio. It is possible that these two measures will be discrepant, but only if they are close to 1.0.

Understanding Risk Adjustment - The Simplified Version

Table 12. Risk-adjusted Rate Interpretations

Statistic	Interpretation
Risk-adjusted rate > STS event rate	When the risk-adjusted rate for a particular adverse outcome is greater than the STS average rate, then the participant had more of those outcomes than expected given their case-mix.
Risk-adjusted rate < STS event rate	When the risk-adjusted rate for a particular adverse outcome is less than the STS average rate, then the participant had less of those outcomes than expected given their case-mix.
Risk-adjusted rate = STS event rate	When the risk-adjusted rate for a particular adverse outcome is equal to the STS average rate, then the participant had the same number of those outcomes as expected given their case-mix.

Data Analyses of The Society of Thoracic Surgeons

Participant: 99999
STS Period Ending Mar 2021

STAR Rating and Scores

Drill Down details

NQF Measures

Star Rating Trends

Quality Ratings	Quality Rating Details	Rating Trends	NQF Reporting (Process and Outcome Measures
CABG	CABG	Rating Trends	CABG Process Measures
AVR	AVR		CABG Outcome Measures
AVR + CABG	AVR + CABG		All Cardiac Surgeries Process Measures
MVRR	MVRR		Mortality Outcome Measures
MVRR + CABG	MVRR + CABG		

STAR Rating

Column 4. Participant Rating.

The participant rating system assigns participants to rating categories designated by one, two, or three stars. The rating categories are defined as follows:

★★★ → Participant performance is significantly higher than STS mean.

★★ → Participant performance is not statistically different from STS mean.

★ → Participant performance is significantly lower than STS mean.

Data Completeness Requirement: Participants were excluded from the analysis if they had fewer than 10 isolated CABG procedures in the patient population and if they had more than 5% missing data on any of the following 5 NQF-endorsed process measures: use of IMA, preoperative beta blockade therapy, discharge beta blockade therapy; discharge anti-platelet medication; and discharge anti-lipid medication.

There are also thresholds that must be met for mortality fields.

Mortality fields: Mortality is counted as missing for a record if any of the fields below are missing. A value of unknown counts as missing.
a. MtDCStat (Sequence# 5010, Vrsn. 2.81); DischMortStat (Sequence# 7005, Vrsn. 2.9)
b. Mt30Stat (Sequence# 5015, Vrsn. 2.81; Sequence# 7001, Vrsn. 2.9)
c. MtOpD (Sequence# 5025, Vrsn. 2.81; Sequence# 7124, Vrsn. 2.9)

If the percent missing is higher than 10% for year 2015 you are at risk of not receiving a star rating.
If the percent missing is higher than 5% for year 2016 you are at risk of not receiving a star rating.
If the percent missing is higher than 2% for year 2017 or after you are at risk of not receiving a star rating.

Quality Ratings

ACSD Reports
ACSD Risk Adjusted Dashboard Report

Expand

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Star Ratings are only calculated for Harvest 1 and Harvest 3.

Domain	Rating	Participant		STS				
		Score	98% CI	Score	Min - Max	10th	50th	90th
Overall	⭐⭐⭐	97.55%	(96.70-98.22)	96.68%	(91.08-98.92)	95.12%	96.86%	97.98%
Absence of Mortality	⭐⭐	97.78%	(96.57-98.65)	97.42%	(92.79-99.19)	96.22%	97.56%	98.44%
Absence of Morbidity	⭐⭐⭐	92.68%	(90.02-94.86)	89.31%	(73.20-96.33)	84.71%	89.79%	93.25%

Quality Rating Details

Rating Trends

NQF Measures

Adult Cardiac Surgery Database
99999

Melinda O

File   Edit   Data   Visualizations   View   Tools   User

The Society of Thoracic Surgeons

NQF - Endorsed Measures - CABG Process Measures
Participant: 99999
STS Period Ending Mar 2021

Domain	Participant				STS			
	Elig Proc	Score	95% CI	Percentile	Score	Min-Max	10th	50th
Preoperative Beta Blockade	390	91.03%	(87.74-93.67)	15.60%	96.45%	(35.00-100.00)	88.04%	98.52%
Use of IMA	431	99.54%	(98.33-99.94)	24.10%	99.50%	(83.33-100.00)	98.61%	100.00%
Discharge Anti-Platelet Medication	423	100.00%	(99.13-100.00)	100.00%	99.20%	(66.67-100.00)	97.62%	100.00%
Discharge Beta Blockade Therapy	413	99.27%	(97.89-99.85)	35.20%	98.78%	(40.00-100.00)	96.30%	100.00%

IQVIA Library

Housekeeping Tips

Keep DCF and or your collection notes for at least 4 years.

Keep a log of 30-Day Mortality / 30 Day Readmission/ 30 Day DSWI & Infection in the event of an Audit.

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*
  - ckrohn@sts.org

Contact Information

- Carole Krohn, Sr. Clinical Manager, STS National Database
  - Ckrohn@sts.org
  - 312-202-5847

- Database Operational Questions
  - STSDB@sts.org

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.org