New Data Managers Session 1

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
Who is the STS Data Manager

- Self Motivated
- Compulsive Attention to Detail
- Committed to the STS Objectives
- Flexible
- Computer Skills
Why Are You Important?

As the data manager YOU are the key to data quality and integrity
LET THE GAMES BEGIN
Data Manager Resources

- STS Website
- Webinars
- Mentorship Program
- Advances in Quality Outcomes Conference (AQO)
- Database News newsletter
- ACSD– Regional groups
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
Data Manager Education

ACSD Dashboard Overview
Data Manager Mentorship Program
2019 Data Manager Survey Results
List of Mortality Status Fields
Tips for Collecting 30-Day Follow-Up Data
STS/IQVIA Uploader Instructions

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
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 Emily Conrad.

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

• Objective to improve data abstraction and coding skills.
A Q O Update

A Q O is going virtual

Same dates as originally planned

• 9/30-10/2

Each database will have dedicated time for live sessions

Platform to host the meeting

• Wide variety of functions
  • Live stream talks
  • Prerecorded material
  • E-posters
  • Q&A
  • Panel Discussions
  • Chat Boards
  • Vendor engagement
  • Other details still being worked out
Database News Newsletter

• 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

May / June 2020
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.

Launch of Webinar Series for New Data Managers
Regional Groups
Frequently Asked Questions

Clinical Question Request Form

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

Ask a Question
Ask a Question

Full Name *
Email *
Phone *
Participant ID #
Database Version *
- Select -
State/Province *
- Select -

Sequence #: *
Short Field Name:

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

Question: *
Additional Resources on STS Website

- Data Collection Forms
- Training Manual
- Ask a Clinical Question
- FAQ Updates
Data Collection Forms (DCF’s)

Non-Annotated DCF

Annotated DCF
Navigating the STS Website:

Adult Cardiac Surgery Database Data Collection

The STS Adult Cardiac Surgery Database is currently operating under version 2.9. Data collection forms, training manuals, and additional resources are available to assist in data collection. (Note: Anesthesia information is included in the version 2.9 training manual and data collection forms listed below.)

Version 2.9

Effective July 1, 2017

Training Manual - Updated September, 2019
- Training Manual
- FAQ Summary - September 2019

Data Collection Forms (DCFs) - Updated February 13, 2017
- Non-Annotated DCF
- Word Version Non-Annnotated DCF
- Annotated DCF

To view annotation in the non-annotated Word DCF, select File – Options – Display – Show Hidden Text. If you need further assistance, please contact your IT Department or do an internet search for your specific version of Office on ways to view hidden text.
### SEQ. #: 205

**Long Name:** Hospital Name  
**Short Name:** HospName  
**Definition:** Indicate the full name of the facility where the procedure was performed. Values should be full, official hospital name as it appears on the contract with the STS, with no abbreviations or variations in spelling for a single hospital. Values should also be in mixed-case.
Navigating the STS Website:

Additional Resources

- Short Names and Sequence Number Crosswalk: v2.35-v2.9
- Instructions to Sort Anesthesia Fields within 2017Q3 DQR (Word document)
- Itemized Changes from v2.81 to v2.9
- Data Specifications
- Software Specifications
- Congenital Diagnoses and Procedure List
- Procedure Identification Chart
- Risk Model Variable Chart
Data Specifications

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

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

Data Source: User

Format: Text (categorical values specified by STS)

SeqNo: 375
Core: Yes
Harvest: Yes

Harvest Codes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
Data Specifications - Parent Child Relationship

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Name</td>
<td>RF-Diabetes-Control</td>
</tr>
<tr>
<td>Short Name</td>
<td>DiabCtrl</td>
</tr>
<tr>
<td>ParentShortName</td>
<td>Diabetes</td>
</tr>
<tr>
<td>ParentLongName</td>
<td>RF-Diabetes</td>
</tr>
<tr>
<td>ParentHarvestCodes</td>
<td>1</td>
</tr>
<tr>
<td>ParentValues</td>
<td>= &quot;Yes&quot;</td>
</tr>
</tbody>
</table>

SeqNo: 365
Core: Yes
# Data Specification

<table>
<thead>
<tr>
<th>Long Name</th>
<th>Height (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Name</td>
<td><strong>HeightCm</strong></td>
</tr>
<tr>
<td>Section Name</td>
<td>Risk Factors</td>
</tr>
<tr>
<td>DBTableName</td>
<td>Adultdata1</td>
</tr>
<tr>
<td>Definition</td>
<td>Indicate the height of the patient in centimeters.</td>
</tr>
<tr>
<td>Data Source</td>
<td>User</td>
</tr>
<tr>
<td>Format</td>
<td>Real</td>
</tr>
<tr>
<td>Low Value</td>
<td>20.0</td>
</tr>
<tr>
<td>High Value</td>
<td>251.0</td>
</tr>
<tr>
<td>UsualRangeLow</td>
<td>122.0</td>
</tr>
<tr>
<td>UsualRangeHigh</td>
<td>213.0</td>
</tr>
</tbody>
</table>

SeqNo: 330  
Core: Yes  
Harvest: Yes
Software Specifications – page 4

• Important Resource to be familiar with

• Dates of Versions

<table>
<thead>
<tr>
<th>Surgery date</th>
<th>Data Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any dates up to December 31, 1999</td>
<td>Data converted to 2.35 format</td>
</tr>
<tr>
<td>January 1, 2000 through December 31, 2001</td>
<td>2.35</td>
</tr>
<tr>
<td>January 1, 2002 through June 30, 2002</td>
<td>2.35 or 2.41</td>
</tr>
<tr>
<td>July 1, 2002 through December 31, 2003</td>
<td>2.41</td>
</tr>
<tr>
<td>January 1, 2004 through December 31, 2004</td>
<td>2.41 or 2.52.1</td>
</tr>
<tr>
<td>July 1, 2004 through June 31, 2007</td>
<td>2.52.1</td>
</tr>
<tr>
<td>July 1, 2007 through December 31, 2007</td>
<td>2.52.1 or 2.61</td>
</tr>
<tr>
<td>January 1, 2008 through June 30, 2011</td>
<td>2.61</td>
</tr>
<tr>
<td>July 1, 2011 through June 30, 2014</td>
<td>2.73</td>
</tr>
<tr>
<td>July 1, 2014 through June 30, 2017</td>
<td>2.81</td>
</tr>
<tr>
<td>July 1, 2017 through June 30, 2020</td>
<td>2.9</td>
</tr>
<tr>
<td>July 1, 2020 through current date</td>
<td>4.20.2</td>
</tr>
</tbody>
</table>
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.
Data Specification

**Long Name:** Height (cm)  
**Short Name:** HeightCm  
**Section Name:** Risk Factors  
**DBTableName:** AdultData1  
**Definition:** Indicate the height of the patient in centimeters.  
**Data Source:** User  
**SeqNo:** 330  
**Core:** Yes  
**Harvest:** Yes

- **Format:** Real  
- **Low Value:** 20.0  
- **High Value:** 251.0  
- **UsualRangeLow:** 122.0  
- **UsualRangeHigh:** 213.0
• 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
• 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.
• Parent Child Relationships

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.
Meld Score Calculation – system calculation must have INR, Total Bili, and Creatinine to calculate
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.
Appendix F: Field Short Name and Seq No by Data Vrsn.

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.

<table>
<thead>
<tr>
<th>Short Name</th>
<th>2.35</th>
<th>2.41</th>
<th>2.52.1</th>
<th>2.61</th>
<th>2.73</th>
<th>2.81</th>
<th>2.9</th>
<th>4.20.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>AbxDisc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AbxSelect</td>
<td>2290</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AbxTiming</td>
<td>2280</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AddIntraopPAni</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2295</td>
</tr>
<tr>
<td>ADevDelMeth01</td>
<td></td>
<td></td>
<td>5455</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADevDelMeth02</td>
<td></td>
<td></td>
<td>5480</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADevDelMeth03</td>
<td></td>
<td></td>
<td>5505</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>ADevDelMeth04</td>
<td></td>
<td></td>
<td>5530</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADevDelMeth05</td>
<td></td>
<td></td>
<td>5555</td>
<td></td>
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</tr>
<tr>
<td>ADevDelMeth06</td>
<td></td>
<td></td>
<td>5580</td>
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<td></td>
</tr>
<tr>
<td>ADevDelMeth07</td>
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<td></td>
<td>5605</td>
<td></td>
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</tr>
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<td>ADevDelMeth08</td>
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<td>5630</td>
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<td>ADevDelMeth09</td>
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<td>5680</td>
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<tr>
<td>ADevDelMeth11</td>
<td></td>
<td></td>
<td>5705</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ADevDelMeth12</td>
<td></td>
<td></td>
<td>5730</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADevDelMeth13</td>
<td></td>
<td></td>
<td>5755</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Additional Resources

• Surgeon Worksheets
  • *Word versions of documents are available so sites can manipulate them to their needs. (surgeon worksheets and DCFs)*

• Congenital Diagnoses and Procedure List

• Procedure ID

• Risk Model Variable Chart

• Things no longer available:
  • Medications, Valve/VAD lists
Additional Resources – Surgeon Worksheets

Surgeon Worksheets

- Procedures of the Aorta [Word Version] (Revised August 8, 2017)
- Aortic Valve [Word Version]
- Intraoperative TEE Post-Procedures [Word Version]
- Mitral Valve [Word Version]
- Tricuspid and Pulmonic Valve [Word Version]
- Atrial Fibrillation/Maze Procedures [Word Version]

STS CABG Surgeon Worksheet V2.9

<table>
<thead>
<tr>
<th>Internal Mammary Artery:</th>
<th>LIMA</th>
<th>Pedicle</th>
<th>RIMA</th>
<th>Pedicle</th>
<th>Skeletonized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Mammary Artery:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason for No Internal Mammary Used:
- Subclavian steal
- Previous mediastinal radiation
- No (bypassable) LAD disease
- Previous cardio or thoracic surgery
- Emergent or salvage procedure
- Other

- Saphenous

Prep time:
- A
- B
- C
- D
- E
- F
- G
- H
- I
- J

Use one column for each diseased vessel and distal intervention:
- Vein Graft
- In Situ LIMA
## Additional Resources - Congenital Diagnoses and Procedure List

### Congenital Diagnosis By Category

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

### 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 |
Open Discussion

Please use the Q&A Function.

We will answer as many questions as possible.

We encourage your feedback and want to hear from you!
Thank You

Session II to be held June 11 @ 2pmCT
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