Congenital Heart Surgery Database v.3.3 *effective July 1, 2015*
Training Manual
September 2018

Table of Contents

Introduction

This manual is intended to clarify field definition and intent. This document contains the most up to date instructions for v. 3.3 data abstraction. Do not refer to old manuals or other data definitions. Please review this document prior to submitting clinical questions. FAQs will be added to the document in red to provide additional examples and clarification. Please do not print this document since it will change frequently. Using the web version will ensure that you have the most up to date information. Occasionally there may be changes or important information that will be highlighted here and will be also included in STS Database Newsletters.

Use the Ctrl + F function to search for a number or term of interest.

General Information:
The STS data collection forms should be held for two years. If you only collect data directly to the software you are not required to create data collection forms to save.

For all questions where the choices include "no" and "unknown": When a history and physical or a consultation exists in the medical record and the values are not specifically addressed in the documentation, code no. Unknown should be coded only in the circumstance where no clinical documentation exists and the patient cannot give history and supportive documentation.

1. Administrative

SeqNo: 10
Long Name: Participant ID
Short Name: ParticID
Database Table Name: Operations
Data Source: User or Automatic
Format: Text Data Length: 5
Definition: Participant ID is a unique number assigned to each database participant by the STS. A database participant is defined as one entity that signs a Participation Agreement with the STS, submits one data file to the harvest, and gets back one report on their data. The participant ID must be entered into each record.

Each participant's data, if submitted to harvest, must be in one data file. If one participant keeps their data in more than one file (e.g., at two sites), then the participant must combine them back into one file for harvest submission.

If two or more participants share a single purchased software, and enter cases into one database, then the data must be extracted into two different files, one for each participant ID, with each record having the correct participant ID number.

SeqNo: 20
Long Name: STS Data Version
Short Name: DataVrsn
Database Table Name: Operations

Data Source: Automatic
Format: Text Data Length: 8
Definition: Version number of the STS Data Specifications/Dictionary, to which each record conforms. It will identify which fields should have data, and what are the valid data for each field. This must be entered into the record automatically by the software at the time the record is created.

SeqNo: 30
Long Name: On-Demand Files Version Number
Short Name: OnDemandVrsn
Database Table Name: Operations
Data Source: Automatic
Format: Text
Definition: The version number of the On-Demand lists in use at the time this data record was created or edited. The value is inserted into the record at the time the record is created or is modified by the user. The version numbers will be specified by the STS.

SeqNo: 40
Long Name: Software Vendor Identifier
Short Name: VendorID
Database Table Name: Operations
Data Source: Automatic
Format: Text Data Length: 8
Definition: Identifying code (assigned by STS) given to identify software vendor (up to 8 characters). Vendors should use standard name identification across sites. Changes to Software Vendor Identifier must be reported to the STS.

SeqNo: 50
Long Name: Software Version
Short Name: SoftVrsn
Database Table Name: Operations
Data Source: Automatic
Format: Text Data Length: 20
Definition: Vendor's software product name and version number identifying the software which created this record. Vendor controls the value in this field.

SeqNo: 60
Long Name: Operation Table Record Identifier
Short Name: OperationID
Database Table Name: Operations

Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. The value of the identifier is a combination of a code assigned to the software developer by the STS, and a value generated by the software to create a unique value. Once assigned to a record, this number can never be changed or reused. The data warehouse will use this value to communicate issues about individual records with the participant. This field is the primary key that links this record with the associated records in the Diagnosis, Risk Factors, Preoperative Factors, Procedures, Complications, Anesthesia Adverse Events, Preoperative Medications, Intraoperative Pharmacology, and ICU Pharmacology tables.

SeqNo: 70
Long Name: Operations Link to Demographics Table
Short Name: PatID
Database Table Name: Operations
Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each patient demographic record in the participant's database. This field is the foreign key that links this record with the associated record in the Demographics table.

SeqNo: 81
Long Name: Patient Participating In STS-Related Clinical Trial
Short Name: ClinTrial
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate which, if any, STS-related clinical trial in which the patient is participating. The STS will assign a code to each clinical trial as they begin collecting data.

SeqNo: 82
Long Name: Patient Participating In STS-Related Clinical Trial - Patient ID
Short Name: ClinTrialPatID
Database Table Name: Operations
Data Source: User
Format: Text
Definition: Indicate the patient identifier used to identify the patient in the clinical trial.

Parent Long Name: Patient Participating In STS-Related Clinical Trial
Parent Short Name: ClinTrial
Parent Value(s): Is Not "None" And Is Not Missing

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2. Demographics

SeqNo: 90
Long Name: Demographics Table Patient Identifier
Short Name: PatID
Database Table Name: Demographics
Data Source: Automatic
Format: Text
Definition: An arbitrary value (not a recognizable ID like Social Security Number or Medical Record Number) that uniquely and permanently identifies each patient. The value of the identifier is a combination of a code assigned to the software developer by the STS, and a value generated by the software to create a unique value. Once assigned to a patient, this can never be changed or reused.

This field is the primary key that links this demographics record with the associated records in the Non-Cardiac Abnormalities, Noncardiac Congenital Anatomic Abnormalities, Chromosomal Abnormalities, and Syndromes tables.

SeqNo: 100
Long Name: Demographics Table Data Version
Short Name: DemogDataVrsn
Database Table Name: Demographics
Data Source: Automatic
Format: Text
Definition: Version number of the STS Data Specifications/Dictionary, to which this Demographics record conforms as assigned by the software. This value will determine which fields should have data and what are the valid data for each field. This must be entered into the record automatically by the software at the time the record is created. See Software Specifications document for description of how this value can be modified after the record was created.

SeqNo: 110
Long Name: Patient National Identification (Social Security Number)
Short Name: PatNationalID
Database Table Name: Demographics
Data Source: User
Format: Text
Definition: Indicate the patient's Social Security Number (SSN). Although this is the Social Security Number in the USA, other countries may have a different National Patient Identifier Number. For example in Canada, this would be the Social Insurance Number.

This field should be collected in compliance with state/local privacy laws.

SeqNo: 120
Long Name: Medical Record Number
Short Name: MedRecN
Database Table Name: Demographics
Data Source: User
Format: Text Data Length: 25
Definition: Indicate the patient's medical record number at the hospital where surgery occurred.

This field should be collected in compliance with state/local privacy laws.

SeqNo: 140
Long Name: Patient Last Name
Short Name: PatLName
Database Table Name: Demographics
Data Source: User
Format: Text Data Length: 50
Definition: Indicate the patient's last name documented in the medical record.

This field should be collected in compliance with state/local privacy laws.

SeqNo: 150
Long Name: Patient First Name
Short Name: PatFName
Database Table Name: Demographics
Data Source: User
Format: Text Data Length: 50
Definition: Indicate the patient's first name documented in the medical record.

This field should be collected in compliance with state/local privacy laws.

SeqNo: 170
Long Name: Patient Middle Name
Short Name: PatMName
Database Table Name: Demographics
Data Source: User
Format: Text Data Length: 50
Definition: Indicate the patient's middle name or middle initial as documented in the medical record. Leave "blank" if no middle name.

This field should be collected in compliance with state/local privacy laws.

SeqNo: 180
Long Name: Patient's Region
Short Name: PatRegion
Database Table Name: Demographics
Data Source: User
Format: Text Data Length: 50
Definition: Indicate the region of the country (i.e., state or province) in which the patient permanently resides at time of admission.

SeqNo: 190
Long Name: Patient's Postal Code
Short Name: PatPostalCode
Database Table Name: Demographics
Data Source: User
Format: Text Data Length: 20
Definition: Indicate the ZIP Code of the patient's residence. Outside the USA, this data may be known by other names such as Postal Code.

This field should be collected in compliance with state/local privacy laws.

SeqNo: 201
Long Name: Patient's Country
Short Name: PatientCountry
Database Table Name: Demographics
Data Source: User
Format: Text
Definition: Indicate the patient's country of residence at time of admission.

This field should be collected in compliance with state/local privacy laws.

SeqNo: 202
Long Name: Birth Location Is Known
Short Name: BirthLocKnown
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the location (city, state, country) of the patient's birth is known.

SeqNo: 210

Long Name: City of Birth
Short Name: BirthCit
Database Table Name: Demographics
Data Source: User
Format: Text
Definition: Indicate the city in which the patient was born.

Parent Long Name: Birth Location Is Known
Parent Short Name: BirthLocKnown
Parent Value(s): = "Yes"

SeqNo: 220
Long Name: Birth Region
Short Name: BirthSta
Database Table Name: Demographics
Data Source: User
Format: Text Data Length: 50
Definition: Indicate the region of the country (i.e., state or province) in which the patient was born.

Parent Long Name: Birth Location Is Known
Parent Short Name: BirthLocKnown
Parent Value(s): = "Yes"

SeqNo: 231
Long Name: Country of Birth
Short Name: BirthCountry
Database Table Name: Demographics
Data Source: User
Format: Text
Definition: Indicate the country in which patient was born.

This field should be collected in compliance with state/local privacy laws.

Parent Long Name: Birth Location Is Known
Parent Short Name: BirthLocKnown
Parent Value(s): = "Yes"

SeqNo: 232
Long Name: Mode of Delivery Known
Short Name: DelivModeKnown
Database Table Name: Demographics
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate whether the mode of delivery is known.

SeqNo: 233
Long Name: Mode of Delivery
Short Name: DelivMode
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the mode of delivery.

Parent Long Name: Mode of Delivery Known
Parent Short Name: DelivModeKnown
Parent Value(s): = "Yes"

SeqNo: 234
Long Name: Mother's Gravidity And Parity Known
Short Name: GravParKnown
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's mother's gravidity and parity are known.

SeqNo: 235
Long Name: Mother's Gravidity
Short Name: Gravidity
Database Table Name: Demographics
Data Source: User
Format: Integer
Definition: Indicate the number of times the mother of the patient has been pregnant, regardless of whether these pregnancies were carried to term. This includes the current pregnancy.

Low Value: 1 High Value: 30
Parent Long Name: Mother's Gravidity And Parity Known
Parent Short Name: GravParKnown
Parent Value(s): = "Yes"

SeqNo: 236
Long Name: Mother's Parity
Short Name: Parity
Database Table Name: Demographics

Data Source: User
Format: Integer
Definition: Indicate the number of >20-week births the patient's mother has had. Pregnancies with multiple babies (twins, triplets, etc.) count as 1 birth.

Low Value: 0 High Value: 30
Parent Long Name: Mother's Gravidity And Parity Known
Parent Short Name: GravParKnown
Parent Value(s): = "Yes"

February 2016: The definition is not very specific - are we documenting the mothers parity including this child with heart disease or prior to this child? As an example, a woman who has been pregnant twice (G2), has a 5 year old child, and now has delivered her second child who now has had heart surgery. When entering that case do we consider her a P1 or a P2? **Same as the Gravity, P2 since the child was delivered.**

SeqNo: 237
Long Name: APGAR Scores Known
Short Name: ApgarKnown
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's APGAR scores are known.

SeqNo: 238
Long Name: APGAR Score At 1 Minute
Short Name: Apgar1
Database Table Name: Demographics
Data Source: User
Format: Integer
Definition: Indicate the patient's APGAR score at 1 minute after birth.

Low Value: 0 High Value: 10
Parent Long Name: APGAR Scores Known
Parent Short Name: ApgarKnown
Parent Value(s): = "Yes"

SeqNo: 239
Long Name: APGAR Score At 5 Minutes
Short Name: Apgar5
Database Table Name: Demographics
Data Source: User
Format: Integer

Definition: Indicate the patient's APGAR score at 5 minutes after birth.

Low Value: 0 High Value: 10
Parent Long Name: APGAR Scores Known
Parent Short Name: ApgarKnown
Parent Value(s): = "Yes"

SeqNo: 240
Long Name: Mother's Name Known
Short Name: MatNameKnown
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the name of patient's biological mother at time of patient's birth is known. If the patient is adopted and the name of the patient's biological mother is not known, indicate whether the name of the patient's adopted mother is known.

SeqNo: 250
Long Name: Mother's Last Name
Short Name: MatLName
Database Table Name: Demographics
Data Source: User
Format: Text
Definition: Indicate the last name of patient's biological mother at time of patient's birth, if it is known.

If the patient is adopted, if the last name of the patient's biological mother is known, please enter the last initial of the patient's biological mother.

If the patient is adopted, if the last name of the patient's biological mother is not known, please enter the last name of the patient's adopted mother.

This field should be collected in compliance with state/local privacy laws.

Parent Long Name: Mother's Name Known
Parent Short Name: MatNameKnown
Parent Value(s): = "Yes"

SeqNo: 260
Long Name: Mother's First Name
Short Name: MatFName
Database Table Name: Demographics
Data Source: User

Format: Text
Definition: Indicate the first name of patient's biological mother at time of patient's birth, if it is known.

If the patient is adopted, if the first name of the patient's biological mother is known, please enter the first name of the patient's biological mother.

If the patient is adopted, if the first name of the patient's biological mother is not known, please enter the first name of the patient's adopted mother.

This field should be collected in compliance with state/local privacy laws.

Parent Long Name: Mother's Name Known
Parent Short Name: MatNameKnown
Parent Value(s): = "Yes"

SeqNo: 280
Long Name: Mother's Middle Name
Short Name: MatMName
Database Table Name: Demographics
Data Source: User
Format: Text
Definition: Indicate the middle name of patient's biological mother at time of patient's birth, if it is known.

If the patient is adopted, if the middle name of the patient's biological mother is known, please enter the middle name of the patient's biological mother.

If the patient is adopted, if the middle name of the patient's biological mother is not known, please enter the middle name of the patient's adopted mother.

This field should be collected in compliance with state/local privacy laws.

Parent Long Name: Mother's Name Known
Parent Short Name: MatNameKnown
Parent Value(s): = "Yes"

SeqNo: 290
Long Name: Mother's National Identification (Social Security Number) Known
Short Name: MatSSNKnown
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)

Definition: Indicate whether the Social Security Number (SSN) of patient's biological mother at time of patient's birth is known.

If the patient is adopted and the SSN of the patient's biological mother is not known, please indicate whether the SSN of the patient's adopted mother is known.

This field should be collected in compliance with state/local privacy laws.

SeqNo: 300
Long Name: Mother's National Identification (Social Security Number)
Short Name: MatSSN
Database Table Name: Demographics
Data Source: User
Format: Text
Definition: Indicate the Social Security Number (SSN) of patient's biological mother at time of patient's birth, if it is known. Although this is the SSN in the USA, other countries may have a different National Patient Identifier Number. For example in Canada, this would be the Social Insurance Number. If the patient is adopted, if the SSN of the patient's biological mother is known, please enter the SSN of the patient's biological mother.

If the patient is adopted, if the SSN of the patient's biological mother is not known, please enter the SSN of the patient's adopted mother.

This field should be collected in compliance with state/local privacy laws.

Parent Long Name: Mother's National Identification (Social Security Number) Known
Parent Short Name: MatSSNKnown
Parent Value(s): = "Yes"

SeqNo: 310
Long Name: Date of Birth
Short Name: DOB
Database Table Name: Demographics
Data Source: User
Format: Date - mm/dd/yyyy
Definition: Indicate the patient's date of birth using 4-digit format for year. This field should be collected in compliance with state/local privacy laws.

SeqNo: 320
Long Name: Birth Weight Known
Short Name: BirthWtKnown
Database Table Name: Demographics
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's birth weight is known.

SeqNo: 330
Long Name: Birth Weight
Short Name: BirthWtKg
Database Table Name: Demographics
Data Source: User
Format: Real, at least 3 decimal places
Definition: Indicate the weight in kilograms of the patient at birth.

Low Value: 0.100 High Value: 10.000

Parent Long Name: Birth Weight Known
Parent Short Name: BirthWtKnown
Parent Value(s): = "Yes"

SeqNo: 340
Long Name: Gender
Short Name: Gender
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the patient's gender at birth as male, female or ambiguous.

SeqNo: 350
Long Name: Premature Birth
Short Name: Premature
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was born prematurely as defined by a gestational period of less than 37 weeks.

SeqNo: 360
Long Name: Gestational Age At Birth Known
Short Name: GestAgeKnown
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's gestational age at birth is known.

SeqNo: 370
Long Name: Gestational Age At Birth In Weeks
Short Name: GestAgeWeeks
Database Table Name: Demographics
Data Source: User
Format: Integer
Definition: Indicate the patient's estimated gestational age at birth in weeks. This field is a required field for neonates and infants and is an optional field for children and adults.

Low Value: 16 High Value: 44

Parent Long Name: Gestational Age At Birth Known
Parent Short Name: GestAgeKnown
Parent Value(s): = "Yes"

SeqNo: 380
Long Name: Multiple Gestation
Short Name: MultGest
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was part of a multiple gestation, such as twins or triplets.

December 2017: If a mother has a pregnancy loss of a twin at 9 weeks, but the other baby is born and has surgery, should the response to the field "multiple gestation" be marked 'yes' or 'no'? **Code Yes, as the pregnancy was originally of multiple gestation.**

SeqNo: 381
Long Name: Antenatal Diagnosis of Congenital Heart Disease
Short Name: AntenatalDiag
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a cardiac anomaly was diagnosed antenatally (e.g., fetal ultrasound).

SeqNo: 382
Long Name: Fundamental Diagnosis
Short Name: FundDiagnosis

Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: The fundamental diagnosis is a diagnosis that is carried with a patient throughout life through all operations and hospitalizations. The fundamental diagnosis is the most complex cardiac anomaly or condition (congenital or acquired) of the patient.

Most frequently, the primary diagnosis will also be the fundamental diagnosis. For some operations, however, the fundamental diagnosis and primary diagnosis will be different.

For example, consider a child who underwent repair of subaortic stenosis, subsequently develops complete atrioventricular (AV) block, and undergoes pacemaker placement within the same hospitalization. The primary diagnosis for the pacemaker surgery is "Arrhythmia, Heart block, Acquired", while the fundamental diagnosis is "Aortic stenosis, Subvalvar".

Similarly, a patient who has a complete AV canal defect and undergoes either palliation or repair of the defect has a primary and fundamental diagnosis of "AVC (AVSD), Complete CAVSD". Subsequently, the child develops mitral insufficiency and is re-hospitalized for mitral valve replacement. The primary diagnosis for the mitral valve replacement operation is "Mitral regurgitation", but the fundamental diagnosis is "AVC (AVSD), Complete CAVSD."

The utilization of the fundamental diagnosis field, it is hoped, will clarify designation of a primary diagnosis, and enable greater specificity in the lesion specific report analyses.

March 2016 – What should I code as the fundamental diagnosis for a patient with familial ateriopathy with severe hypoplasia of pulmonary and aortic vascular tree, Proximal Left main coronary ostial stenosis, hypoplastic ascending, transverse and descending aorta, hypoplastic pulmonary arteries, stenotic pulmonary valve? **Coronary other, hypoplastic arch.**

May 2016: A patient is admitted with a diagnosis of recurrent aortic stenosis, subvalvar. He has previously undergone a repair of subvalvar aortic stenosis along with a repair/resection of coarctation of the aorta. I am identifying aortic stenosis, subvalvar as the primary diagnosis for the current surgery, but what would the best choice be for the child's fundamental diagnosis? Would it be related to the coarctation of the aorta which has been repaired or the recurrence of the subvalvar aortic stenosis? **Either one would be appropriate.**
April 2017: What is the best choice for fundamental diagnosis for single ventricle patients with both heterotaxy and unbalanced AV Canal? Single Ventricle Heterotaxy? or Single Ventricle Unbalanced AV Canal? **Single Ventricle Heterotaxy, as this is the most complex of the patient's diagnoses.**
July 2017: We have a patient with a diagnosis of Partial AV canal, severe, discrete juxtaductal coarctation of the aorta and a PDA. She came to the OR for repair of the CoAo and PDA ligation. I'm thinking the fundamental diagnosis should be Coarctation of the Aorta(CoAo), with complex intracardiac anomaly. Is this correct? **The fundamental diagnosis is the Partial AV canal (valve disease) as could potentially have more lifelong consequence but in this case, ask your surgeon which he/she thinks may cause more long term disease/sequelae.**

December 2017: We have a patient with a known small perimembranous VSD and PFO who was being followed by cardiology for several years. This patient recently developed endocarditis which resulted in vegetation/ damage to the anterior leaflet of the tricuspid valve. It was discovered that this pt. also had a subaortic membrane. The pt. presented for PFO and VSD closure, subaortic membrane resection and TV leaflet repair. What is the fundamental diagnosis and what is the primary procedure? I am aware of "Rule #3 in primary procedure determination" but the valvuloplasty was performed because the valve was damaged by infection, not because it was taken down in order to repair the VSD. **Fundamental diagnosis is VSD. Based on the rules, the tricuspid valvuloplasty will not be the primary procedure. The subaortic membrane resection and VSD have the same STAT Score and Category, you can select either.**

SeqNo: 383
Long Name: Race Documented
Short Name: RaceDocumented
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether race is documented.

SeqNo: 390
Long Name: Race - Caucasian
Short Name: RaceCaucasian
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's race, as determined by the patient or family, includes Caucasian. This includes a person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting. (www.whitehouse.gov/omb/fedreg/1997standards.html)

Parent Long Name: Race Documented
Parent Short Name: RaceDocumented
Parent Value(s): = "Yes"

SeqNo: 400
Long Name: Race - Black / African American
Short Name: RaceBlack
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)

Definition: Indicate whether the patient's race, as determined by the patient or family, includes Black / African American. This includes a person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting. (www.whitehouse.gov/omb/fedreg/1997standards.html)

Parent Long Name: Race Documented
Parent Short Name: RaceDocumented
Parent Value(s): = "Yes"

SeqNo: 410
Long Name: Race - Asian
Short Name: RaceAsian
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's race, as determined by the patient or family, includes Asian. This includes a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting. (www.whitehouse.gov/omb/fedreg/1997standards.html)

Parent Long Name: Race Documented
Parent Short Name: RaceDocumented
Parent Value(s): = "Yes"

SeqNo: 420
Long Name: Race - American Indian / Alaskan Native
Short Name: RaceNativeAm
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's race, as determined by the patient or family, includes American Indian / Alaskan Native. This includes a person having origins in any of the original peoples of North and South America (including Central America), and who

maintains tribal affiliation or community attachment.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity : The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting.

Parent Long Name: Race Documented
Parent Short Name: RaceDocumented
Parent Value(s): = "Yes"

SeqNo: 430
Long Name: Race - Native Hawaiian / Pacific Islander
Short Name: RaceNativePacific
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's race, as determined by the patient or family, includes Native Hawaiian / Pacific Islander. This includes a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Definition source: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity: The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting. (www.whitehouse.gov/omb/fedreg/1997standards.html)

Parent Long Name: Race Documented
Parent Short Name: RaceDocumented
Parent Value(s): = "Yes"

SeqNo: 440
Long Name: Race - Other
Short Name: RaceOther
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient's race, as determined by the patient or family, includes any other race.

Parent Long Name: Race Documented
Parent Short Name: RaceDocumented
Parent Value(s): = "Yes"

SeqNo: 450
Long Name: Hispanic Or Latino Ethnicity
Short Name: Ethnicity
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the patient is of Hispanic or Latino ethnicity as determined by the patient / family. Hispanic or Latino ethnicity includes patient report of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

SeqNo: 460
Long Name: Date of Last Follow-Up
Short Name: LFUDate
Database Table Name: Demographics
Data Source: User
Format: Date - mm/dd/yyyy
Definition: Indicate the date on which the last follow-up was made. If patient dies in the hospital, this value will be the same as the date of death. If no follow-up is made after patient is discharged, this value will be the same as the discharge date.

SeqNo: 470
Long Name: Last Follow-Up New York Heart Association Classification
Short Name: LFUNYHA
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the patient's New York Heart Association (NYHA) classification at the time of the last follow- up. If no follow-up is made after patient is discharged, this value will be the same as the classification at the time of their last discharge.

July 2017: When filling out this question, what time reference are we using? Is this part of the 30 day assessment? Or is this information pertaining to the admission or surgical event date? In other words-is the last follow up the previous time they had a follow up from the date of admission? Or the follow up that occurred after discharge from this event? **It is the latest time a patient is seen whether from this event or the date of admission.**

SeqNo: 480
Long Name: Mortality Status At Last Follow-Up
Short Name: LFUMortStat
Database Table Name: Demographics
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the mortality status of the patient at the time of the last follow-up. If no

follow-up is made after patient is discharged, this value will be the same as the Mortality Status at Hospital Discharge.

SeqNo: 490
Long Name: Mortality Date
Short Name: MtDate
Database Table Name: Demographics
Data Source: User
Format: Date - mm/dd/yyyy
Definition: Indicate the patient's date of death.

Parent Long Name: Mortality Status At Last Follow-Up
Parent Short Name: LFUMortStat
Parent Value(s): = "Dead"

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3. Noncardiac Congenital Anatomic Abnormalities

SeqNo: 510
Long Name: Noncardiac Congenital Anatomic Abnormalities Table Unique Record Identifier
Short Name: NCAAUniqueID
Database Table Name: NCAA
Data Source: Automatic
Format: Text
Definition: Unique identifier for the record in the Noncardiac Congenital Anatomic Abnormalities table.

SeqNo: 520
Long Name: Noncardiac Congenital Anatomic Abnormalities Link to Demographics Table
Short Name: PatID
Database Table Name: NCAA
Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each patient demographic record in the participant's database. This field is the foreign key that links this record with the associated record in the Demographics table.

SeqNo: 530
Long Name: Major Noncardiac Abnormality
Short Name: NCAA
Database Table Name: NCAA

Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate all of the major noncardiac abnormalities the patient has or select None.

April 2016 – If a patient has a condition that was surgically corrected, for example, "imperforate anus", should this still be recorded as an NCAA? **Yes**

July 2016: I have a patient who was adopted at age of 2 yrs old, and the above information is UNK. How should I code it? Can we add the option of UNK to the next version? **Chromosomal abnormalities can be identified at any time during an individual's life – not everyone has genetic testing at birth. Same is true with respect to clinical diagnoses related to the other two categories. If not known to be present, then nothing gets coded. There is no indication for an "Unknown" option.**

SeqNo: 540
Long Name: Major Noncardiac Abnormality - Other - Specify
Short Name: NCAAOthSp
Database Table Name: NCAA
Data Source: User
Format: Text Data Length: 100
Definition: Indicate the other major noncardiac abnormality.

Parent Long Name: Major Noncardiac Abnormality
Parent Short Name: NCAA
Parent Value(s): = "Other"

---

4. Chromosomal Abnormalities

SeqNo: 550
Long Name: Chromosomal Abnormalities Table Unique Record Identifier
Short Name: ChromAbUniqueID
Database Table Name: ChromAbnormalities
Data Source: Automatic
Format: Text
Definition: Unique identifier for the record in the Chromosomal Abnormalities table.

SeqNo: 560
Long Name: Chromosomal Abnormalities Link to Demographics Table
Short Name: PatID
Database Table Name: ChromAbnormalities
Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each

patient demographic record in the participant's database. This field is the foreign key that links this record with the associated record in the Demographics table.

SeqNo: 570
Long Name: Chromosomal Abnormality
Short Name: ChromAb
Database Table Name: ChromAbnormalities
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient has one of the following chromosomal abnormalities.

SeqNo: 580
Long Name: Chromosomal Abnormality - Other - Specify
Short Name: ChromAbOthSp
Database Table Name: ChromAbnormalities
Data Source: User
Format: Text Data Length: 100
Definition: Indicate the other chromosomal abnormalities.

Parent Long Name: Chromosomal Abnormality
Parent Short Name: ChromAb
Parent Value(s): = "Other chromosomal abnormality"

---

5. Syndromes

SeqNo: 590
Long Name: Syndromes Table Unique Record Identifier
Short Name: SynUniqueID
Database Table Name: Syndromes
Data Source: Automatic
Format: Text
Definition: Unique identifier for the record in the Syndromes table.

SeqNo: 600
Long Name: Syndromes Link to Demographics Table
Short Name: PatID
Database Table Name: Syndromes
Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each

patient demographic record in the participant's database. This field is the foreign key that links this record with the associated record in the Demographics table.

SeqNo: 610
Long Name: Syndrome
Short Name: Syndrome
Database Table Name: Syndromes
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient has a "Syndrome" or "Syndromic abnormality". A "syndrome" is defined as a group of signs and symptoms that occur together, and characterize a particular abnormality [1].

[1]. Tchervenkov CI, Jacobs JP, Weinberg PM, Aiello VD, Beland MJ, Colan SD, Elliott MJ, Franklin RC, Gaynor JW, Krogmann ON, Kurosawa H, Maruszewski B, Stellin G. The nomenclature, definition and classification of hypoplastic left heart syndrome. Cardiology in the Young, 2006; 16(4): 339–368, August 2006.

June 2016: Does a syndrome like Tourette's belong in the syndrome field, the preoperative factor field (as a neurological deficit), or in both? **Tourette's would be in syndrome, other. It will not impact the patient's recovery.**
January 2017: Is it correct to interpret #160-Fetal Drug Exposure as anything taken that would not normally be recommended or prescribed for use during pregnancy? Or is this strictly illicit drugs? What is the purpose of this field? **Anything taken that would not normally be recommended or prescribed for use during pregnancy should be captured. The field pertains to drugs etc., which may not be illicit but some may be contraindicated during pregnancy.**

SeqNo: 620
Long Name: Syndrome - Other - Specify
Short Name: SyndromeOthSp
Database Table Name: Syndromes
Data Source: User
Format: Text Data Length: 100
Definition: Indicate the other "Syndrome" or "Syndromic abnormality".

Parent Long Name: Syndrome
Parent Short Name: Syndrome
Parent Value(s): = "Other syndromic abnormality"

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6. Hospitalization

SeqNo: 630
Long Name: Hospital Name
Short Name: HospName
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by user) Data Length: 100
Definition: Indicate the full name of the facility where the procedure was performed. Values should be full, official hospital names with no abbreviations or variations in spelling for a single hospital. Values should also be in mixed-case.

SeqNo: 640
Long Name: Hospital Zip Code
Short Name: HospZIP
Database Table Name: Operations
Data Source: Lookup
Format: Text Data Length: 20
Definition: Indicate the ZIP Code of the hospital. Outside the USA, these data may be known by other names such as Postal Code. This field should be collected in compliance with state/local privacy laws.

SeqNo: 650
Long Name: Hospital State
Short Name: HospStat
Database Table Name: Operations
Data Source: Lookup
Format: Text Data Length: 50
Definition: Indicate the region of the country (i.e., state or province) in which the hospital is located.

SeqNo: 660
Long Name: Hospital National Provider Identifier
Short Name: HospNPI
Database Table Name: Operations
Data Source: Lookup
Format: Text
Definition: Indicate the hospital's National Provider Identifier (NPI). This number, assigned by the Center for Medicare and Medicaid Services (CMS), is used to uniquely identify facilities for Medicare billing purposes.

SeqNo: 771
Long Name: Primary Payor

Short Name: PayorPrim
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the primary insurance payor for this admission.

SeqNo: 772
Long Name: Primary Payor Medicare Fee For Service
Short Name: PrimMCareFFS
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient is covered by Medicare Fee For Service (Part B).

Parent Long Name: Primary Payor
Parent Short Name: PayorPrim
Parent Value(s): = "Medicare"

SeqNo: 773
Long Name: Secondary (Supplemental) Payor
Short Name: PayorSecond
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate which if any secondary insurance payor was used for this admission.

Parent Long Name: Primary Payor
Parent Short Name: PayorPrim
Parent Value(s): Is Not "None / self" And Is Not Missing

SeqNo: 774
Long Name: Secondary Payor Medicare Fee For Service
Short Name: SecondMCareFFS
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient is covered by Medicare Fee For Service (Part B).

Parent Long Name: Secondary (Supplemental) Payor
Parent Short Name: PayorSecond
Parent Value(s): = "Medicare"

SeqNo: 780
Long Name: Date of Admission
Short Name: AdmitDt
Database Table Name: Operations
Data Source: User
Format: Date - mm/dd/yyyy
Definition: Indicate the date the patient was admitted to the hospital. For those patients who originally enter the hospital in an out-patient capacity (i.e., catheterization), but then are not discharged, the admit date is the date of the patients entry into the hospital.

May 2016: What is meant by 'hospitalization'? Does this include periods of time when a patient was cared for at an OSH prior to the admission to our facility for surgery? **It is the date of admission to your facility.**

SeqNo: 781
Long Name: Location From Which Patient Admitted
Short Name: AdmitFromLoc
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the location from which the patient was admitted.

SeqNo: 790
Long Name: Date of Surgery
Short Name: SurgDt
Database Table Name: Operations
Data Source: User
Format: Date - mm/dd/yyyy
Definition: Indicate the date of surgery which equals the date the patient enters the OR or equivalent.

August 2016: We had a patient who needed an angiogram during his operation. We don't have a hybrid suite so he left the OR on ECMO to go to the cath lab, then came back to the OR and placed back on bypass to finish his operation. Should I code this as one surgery or two? **This would be considered one surgery. The reason is if your facility did have a hybrid suite this situation would be considered one procedure.**

SeqNo: 800
Long Name: Height in Centimeters
Short Name: HeightCm
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the height of the patient in centimeters at the time of surgery.

Low Value: 15.0 High Value: 250.0

SeqNo: 810
Long Name: Weight in Kilograms
Short Name: WeightKg
Database Table Name: Operations
Data Source: User
Format: Real, at least 3 decimal places
Definition: Indicate the weight of the patient in kilograms at the time of surgery.

Low Value: 0.001 High Value: 200.000

April 2017: What is the purpose of this field? Is it most accurate to capture the patient's dry (dosing) weight or the patient's actual (daily) weight? **Interpret the specs literally. Use the weight that had been most recently recorded at the time of, or just preceding surgery. This number would typically be used by anesthesiologist to calculate drug dosages, and by the Perfusionist to determine pump flow rates, etc. The weight among infants and neonates is a covariate in the Mortality Risk Model that is used to calculate O:E ratios and report risk-adjusted mortality rates (AMR).**

SeqNo: 820
Long Name: Patient Age In Days
Short Name: AgeDays
Database Table Name: Operations
Data Source: User or Automatic
Format: Integer
Definition: Calculate the patient's age in days at the time of the surgery procedure. The patient's age will be calculated by the software from the date of birth and the date of surgery.

Low Value: 0 High Value: 40150

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7. Preoperative Factors

SeqNo: 830
Long Name: Preoperative Factor Table Unique Record Identifier
Short Name: PoFUniqueID
Database Table Name: PreopFactors
Data Source: Automatic
Format: Text
Definition: Unique identifier for the record in the Preoperative Factors table.

SeqNo: 840

Long Name:	Preoperative Factor Link to Operations Table
Short Name:	OperationID
Database Table Name:	PreopFactors
Data Source:	Automatic
Format:	Text
Definition:	An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. This field is the foreign key that links the Preoperative Factor record with the associated record in the Operations table.

SeqNo: 850

Long Name:	Preoperative Factor
Short Name:	PreopFactor
Database Table Name:	PreopFactors
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate the factors that are present preoperatively that may impact the patient's outcome.

Pre-operative non-invasive ventilation should NOT be coded as pre-operative mechanical ventilation. The intent of the field is to capture patients on support with a mechanical ventilator for cardiorespiratory failure via intubation or tracheostomy. Hi-flow gases, VapoTherm, and other "non-invasive" forms of respiratory support (up to and including BiPap without an endotracheal tube) would not meet this definition.

May 2016: Specifically in regards to PreopFactor 470 - should we code 'mechanical ventilation to treat cardiorespiratory failure' if a patient is intubated for this reason at an OSH prior to coming to our hospital for surgery**? If the patient was intubated to treat respiratory failure then you should indicate 'yes' even if the patient was intubated at an OSH.**
June 2016: I am not always sure what to include in each of the categories: For example: Induced exercise asthma should be included in asthma? ***Yes, if they are receiving treatment.*** ADD/ADHD should be included in neurological deficit? ***No*** For renal dysfunction, do you check the lab results or if it is stated in the H&P or in another note that the patient has renal dysfunction it is enough? ***There should be documentation supporting renal dysfunction in the medical record.*** A 9 yo with trisomy 18 who is non-verbal, non ambulatory and has cognitive function of 3 months old, would you code him as neuro deficit or is it under trisomy 18 in chromosomal abnormalities? ***This is not a neuro deficit.*** Is renal dysfunction for life or in the last year? ***It is not for life or a specific time period. Look at how the patient is prior to surgery.***
July 2016: If a patient has a tracheostomy and is vented at time of OR entry, do you code both "Tracheostomy present" and "Mechanical ventilation to treat cardiorespiratory failure" as preop factors? **Yes**

August 2016: patient had a gastrostomy tube which was removed previously, however, patient has a fistula at the Gtube site. Would I count Gastrostomy present? The fistula is constantly draining onto the abdomen. **A fistula from the stomach to the outside is a "gastrostomy" so it would be appropriate to code "gastrostomy present.**

October 2016: Would 'failure to thrive' be documented under 'other preoperative factors'? And would if it is documented, is it documented even if the reason the patient is failure to thrive because the heart isn't allowing them to grow? **Failure to thrive is not captured in the CHSD; it is your choice whether or not to capture it.**

January 2017: Should inhaled steroids be included in the "currently taking steroids" fields for preoperative factors? **Inhaled steroids should not be included as they are generally taken for reactive airway disease and are not the equivalent of systemic steroid ingestion. The intent of the field was probably related to factors such as: 1) potential increased infection risk, 2) potential impact on healing, and 3) potential for adrenal suppression (and need for "stress" steroid coverage).**

April 2017: For mechanical vent in the pre-operative period, does guidance remain to capture this variable when the patient has experienced mechanical ventilation at any time in the admission, prior to procedure? For example, a patient undergoes CPB in index procedure and is extubated post-op. He then returns to OR for a minor procedure, where he is re-intubated for surgery. Since he was not intubated at the time of the second OR Entry Date/Time, do we still capture Mechanical Vent in Pre-op risk? **No, only include this risk factor if the patient had previously required mechanical ventilation for respiratory failure.**

April 2017: Pt was admitted in Jan 2017 with a possible mass on mitral valve. R/o endocarditis. No fever, neg cultures not on long term antibiotics discharged on Coumadin for thrombus. Pt returned on 3/23 with TIA symptoms and TEE showed a thrombus or vegetation on mitral valve. Again no fever no elevated labs. To OR to remove mitral ring and found in OR slime like material around mitral ring and this time positive for lactobacillus. So here is my question. On risk factors do i mark Endocarditis yes, active and culture other since it was found in this admission or does it get marked no since it was not known prior to this admission? **Yes, code as endocarditis as the patient was diagnosed in the OR and had histologic evidence of endocarditis.**

May 2017: If a mother uses tobacco products during pregnancy would this count as a preop factor of '570 - Tobacco use'? Would it count as '166 - Fetal drug exposure' under syndromes? **No, maternal smoking is currently not captured currently in the database.**

July 2017: If a patient was treated for NEC at another institution and then transferred to ours for transplant evaluation and later transplant, would NEC be coded as a preoperative factor? **Technically, no, do not include as a preoperative factor.**

August 2017: Should Autism be included as a preoperative factor for neurological deficit? **No, based on historic answers of what constitutes a neurologic deficit (cognitive vs. motor).**

September 2017: An ENT patient sustains an intraoperative aortic injury during a jejunal interposition procedure, cardiac surgery is called in for repair. Should the preoperative factors be coded at the time this case "turns" cardiac, or from when the patient enters the OR for the ENT procedure? **Code the risk factors from when the case turns cardiac (cardiac surgeon enters the OR)**

March 2018: Can you give some examples of what DOES count as a Preoperative neurological deficit? Would you count vocal cord paralysis? diaphragm paralysis? sensorineural hearing loss? **Do not include vocal cord paralysis or diaphragm paralysis. Do not include ADHD, ADD, or developmental delays. Do include sensorineural hearing loss, but not conductive hearing loss. Include central or systemic neurologic deficits including muscular dystrophy, cerebral palsy, neurologic deficits manifesting from a previous stroke. These should be not what is included/covered by the NCAA, syndromes, or chromosomal abnormalities.**

July 2018: I need clarification on the preoperative risk factor SEQ#850 for mechanical ventilation (470) to treat cardio-respiratory. If a patient was mechanically ventilated during admission and extubated prior to OR entry and time and then re-intubated in OR for the procedure can we still enter the mechanical ventilation to treat cardio-respiratory under the pre-operative risk factors? **Yes**

August 2018: The specs say to code coagulation disorders if the labs are appropriate at the time of OR entry. Is there a time range that this should include? We do not collect labs prior to OR entry for all patients (or between

admission date/time and OR entry), but patients may have been seen in clinic prior to the OR or in the Coag Lab recently. How far back are these labs "valid"? **Currently there is no definition for this in the data specifications. For now, code the coagulopathy if the lab values are present within 24 hour of entering the OR as most patients who are actively being anticoagulated are instructed to stop their anticoagulant medications prior to surgery.**

August 2018: Regarding coding for asthma as a pre-op factor: Would an infant who has been noted to have reactive airway disease and takes pulmonary medications (1 or more in the past 6 mos) be appropriate to code for asthma? The data specs do not refer to frequency of episodes, number/type of medications pt is on, age of patient, etc. I was told during an audit that a patient who was listed as having reactive airway disease (chart did not say asthma) and was on a preventive as well as rescue pulmonary med should be coded as asthma. On the last STS data manager call it was mentioned that there has to be documentation of visits to a pulmonologist in order to qualify the asthma code. There is no other way to capture a patient who is at risk for post-op respiratory complications. **If asthma is documented in the medical record and the patient is on continued medications (not on an as needed basis), code as asthma.**

August 2018: Regarding renal dysfunction requiring dialysis, the data specs do not specify as some others do whether the dialysis needs to be happening upon entering the OR or just pre-op during the same admission. Wondering whether to code renal failure requiring dialysis (460) for a patient who was on and off of CVVH while on a VAD waiting for a heart transplant. **Code this factor only if the patient is receiving dialysis at the time of entering the OR, i.e. the dialysis was stopped only for the patient to go to the OR.**

September 2018: Would it be accurate to code preoperative factors: 'shock, persistent at time surgery' and 'shock, resolved at time of surgery'. For example, if a patient has an episode of shock with their first procedure and it resolves, but they have another episode of shock with a subsequent procedure that is present at the time of OR entry. Could you potentially record both preoperative risk factors? **Yes, code all preoperative risk factors that are applicable to the case and meet the definitions.**

September 2018: Term newborn noted to have murmur & tachypnea at 2 days old after circumcision. Transferred to NICU and diagnosed as HLHS. Cultures drawn, antibiotics started. Transferred to our hospital for surgery. Antibiotics continued, blood culture drawn on admission negative. Outside hospital notified us that blood culture final reading was positive 4 days of age. Antibiotics stopped after 72 hours. Infant was tachypneic and tachycardic within 48 hours of surgery. Provider states culture was slow growing and still growing when infant 7 days of age. WBC 13.6, platelets 250. Norwood performed at 9 days of age. Would this count as sepsis with positive culture? **This does not represent sepsis with positive blood culture or sepsis. The culture was drawn before treatment and the continued growth is not indicative of the patient's status 48 hours before surgery.**

September 2018: Can life vests be counted as a pre-op risk factor under AICD? Most patients who have them are just waiting for their AICD to be implanted but might be having another procedure prior to the implantation.

Yes, include preop risk factors

8. Diagnosis

SeqNo: 870
Long Name: Diagnosis Table Unique Record Identifier

Short Name: DiagUniqueID
Database Table Name: Diagnosis
Data Source: Automatic
Format: Text
Definition: Unique identifier for the record in the Diagnosis table.

May 2018: Original diagnosis for patient was PA, IVS and procedures were mBTS, PA Reconstruction, Br, Central and AP window repair. A cardiac cath post op concluded that the PV was severely stenotic but NOT atretic. Do we leave the fundamental and primary diagnosis as it was or go back and change to PS, Valvar? **Update the fundamental based on the new findings. The fundamental diagnosis would change if the patient did not have pulmonary atresia. The primary diagnosis would be the reason they went to the OR.**

SeqNo: 880
Long Name: Diagnosis Link to Operations Table
Short Name: OperationID
Database Table Name: Diagnosis
Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. This field is the foreign key that links the Diagnosis record with the associated record in the Operations table.

SeqNo: 890
Long Name: Diagnoses
Short Name: Diagnosis
Database Table Name: Diagnosis
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate all diagnoses noted at the time of the surgical procedure or documented by preoperative studies. This entry may duplicate the Fundamental Diagnosis.

February 2016: which diagnosis would most accurately reflect a diagnosis of inducible ventricular tachycardia found during an EP study (this would not be the patient's primary diagnosis) **"Arrhythmia"**

June 2016: An 8.2kg 7 month old patient underwent LVAD implantation at our institution. She subsequently recovered and presented on 5/23/16 for LVAD explantation. It was discovered during this procedure that there was a diaphragmatic hernia secondary to dense adhesions of the VAD apical cannula to the surface of the diaphragm. What would be the best way to capture this hernia in the diagnosis section? **Complications of VAD implantation; Diaphragmatic, other.**

August 2016: status post other procedures: are status post procedures just for cardiac? Patient is status post a Roux en Y jejunostomy. Would I code that? **It is not necessary to code for that type of gastrointestinal procedure, the s/p codes are mainly for cardiac procedures. Any of the "S/P" codes in the Data Collection form may be used, so you could conceivably code this as 6040=Status post - Miscellaneous procedure, Other or as 11777=Status post - Other procedure.**

October 2016: I am always puzzled how to code the "Open sternum with open (or closed) skin" diagnosis. When it is a past occurrence does it get carried over to the diagnosis list for a new visit? Or does it get dropped and only the SP Delayed sternal closure is coded? **Once the sternum is closed it is no longer a viable diagnosis. Becomes S/P Delayed Sternal Closure.**

November 2016: A patient with history of previous TOF repair was admitted to our facility for pulmonary valve replacement. He was also found to have a "floating"/aberrant left subclavian artery that was causing ischemic pain to his left arm. How would the diagnosis of aberrant Left SC artery be captured? **This cannot be captured on the short list. You can use "cardiac, other"**
December 2016: There is a procedure for valvuloplasty or valve replacement of a common AV Valve, but I can't find a diagnosis for Common AV valve insufficiency. Is there some other diagnosis I should be using? **Is this Left, Right, or Common? Use whichever side is worse as the diagnosis.**
August 2017: A patient with a history of PV stenosis (420) underwent a balloon valvuloplasty for the stenosis. When identifying diagnoses for this patient going forward, would the patient still carry the diagnosis of PV stenosis in addition to the diagnosis of s/p cardiac cath procedure, therapeutic, balloon dilation (6570)or would I only identify the patient as s/p card cath procedure, therapeutic, balloon dilation? **In this example, the fundamental diagnosis would be PV stenosis and would be carried as a definition always. Include both diagnoses.**
September 2017: Should I code an RVOT pseudoaneurysm as "aneurysm, other" or "aneurysm, ventricular, right (including pseudoaneurysm)? Would the related procedure then be "RVOT procedure" or "aneurysm, ventricular, right, repair"? **Code aneurysm, ventricular, right (including pseudoaneurysm) with aneurysm, ventricular, right, repair**
October 2017: I am looking for the best diagnosis that captures this anomaly: DILV,DORV(S,L,L) Upstairs/Downstairs heart with dominant inferior LV and hypoplastic superior RV Criss cross AV valves with straddling TV. **Likely Single ventricle, DILV for primary diagnosis. Refer to surgeons.**
December 2017: How should I code diagnosis code of ARDS for a patient who went on ECMO? **Thoracic and mediastinal, other or Lung disease, benign**
January 2018: A sternal wound debridement was done for sternal wound infection. Entire length of incision was opened, wires removed, and area between leaves of sternum debrided. Wound was irrigated, aspirated, and packed with gauze. Does not seem to fit any of the Diagnoses on list but wanted to ask if it's correct to say "Misc, Other" and also what to code for Procedure. **Diagnosis – can use mediastinitis if applicable or other, mediastinal. Procedure – Other, mediastinal.**
January 2018: Difficulty coding diagnosis and procedure for two separate procedures:
1. A sternal wound debridement for sternal wound infection (wires were removed and chest was left open).
2. Four days later, sternal re-wiring and closure.
Cannot find any historical FAQs related to this specific scenario.
Unfortunately, there are no specific diagnoses and procedures but can be included as other mediastinal diagnoses and procedures.

SeqNo:	900
Long Name:	Primary Diagnosis Indicator
Short Name:	PrimDiag
Database Table Name:	Diagnosis
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate the diagnosis of primary importance at the time of this surgical procedure. Example: fundamental diagnosis of Tetralogy of Fallot. The current Diagnoses are both pulmonary insufficiency and residual ventricular septal defect. In this case, pulmonary insufficiency will be flagged as the primary diagnosis.

February 2016 – Where would I capture inducible ventriculary tachycardia as a pre-operative diagnosis? **Capture as pre-operative arrhythmia, ventricular; code as secondary diagnosis, arrhythmia.**
August 2017: I am having trouble with selecting the correct primary diagnosis for a patient who is being cannulated for ECMO. The patient has a fundamental diagnosis of AVC (transitional), but has not undergone surgery for it. She is being cannulated for severe resp failure/hypoxemia and cardiogenic shock. She has right heart failure mostly due to pulmonary hypertensive crises. Her pulmonary hypertension is not primary pulmonary hypertension. What would I select as a primary diagnosis for the ECMO cannulation? Also for this same patient who then recovers sufficiently to be de-cannulated, what would I select as a primary diagnosis for the de-cannulation? **Select the rationale for why the patient is requiring ECMO (shock, cardiac failure – they short list to cardiac, other).**
February 2018: A patient was admitted with a sternal dehiscence that would require debridement and re-wiring. I use the short list. What would be the best option for a primary diagnosis code for this patient? **There are not good terms for defining this in the short list. Other, Mediastinal or Code 1510 Mediastinal disease, Benign.**
August 2018: 290-TOF vs 2140-TOF, Pulmonary stenosis. Why do patients that have 290 as their diagnosis not show up as TOF patients in the DCRI report. We have been forced to change all patients diagnosis to TOF, PS if we want them included in our count of TOF patients. **The type of TOF needs to be included for comparison purposes. TOF, PS should only be coded for those cases where that is the patient's diagnosis. The table in the analysis report is only looking at one specific type of TOF and not looking at the other types to allow for comparison**

9. Procedures

SeqNo: 910

Long Name:	Procedures Table Unique Record Identifier
Short Name:	ProcUniqueID
Database Table Name:	Procedures
Data Source:	Automatic
Format:	Text
Definition:	Unique identifier for the record in the Procedures table.

SeqNo: 920

Long Name:	Procedures Link to Operations Table
Short Name:	OperationID
Database Table Name:	Procedures
Data Source:	Automatic
Format:	Text
Definition:	An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. This field is the foreign key that links the Procedure record with the associated record in the Operations table.

May 2016: There are currently six short-list options for Coarctation Repair in the STS Congenital Database. They are "End to End", "End to Extended End", "Subclavian flap", "Patch Aortoplasty", "Interposition graft", and

"Other". My surgeon dictates and describes his coarctation repairs as "Coarctation Repair, End to Side". How would you code this using current Coarctation Repair options. Our surgeon can provide more detail of the operation if needed. **Until the codes are updated to include this, use 'end to end – extended'**

SeqNo: 930

Long Name:	Procedures
Short Name:	Procedure
Database Table Name:	Procedures
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate ALL procedures that were performed during this surgical procedure.

12/2015: What surgical procedure do I choose for re-implantation of anomalous right subclavian into right carotid? **Other cardiac unless in the setting of vascular ring repair. Usually an add on procedure. Not analyzed.**
February 2016 : What procedure would I select for a patient who has a reduction of the right atrium / removal RAA done? **Cardiac Procedure, other.**
February 2016: A patient with a previous TOF repair was admitted for a pulmonic valve replacement. A bioprosthetic pulmonary valve was placed and then the RVOT was recontructed with a gore-tex patch for the roof. A cryoablation was performed along the anterior portion of the VSD patch as inducible VT had been mapped to this area. How would I capture this procedure, particularly the re-construction of the RVOT and the cryoablation? **Code separate RV procedure.**
February 2016: Really more of a clarification - we use the IPCCC Long list, for the procedure, PA Reconstruction (plasty), Reduction pulmonary artery arterioplasty - it maps to the STS term of Cardiac procedure, other. Is this working as designed? It seems as all other PA reconstruction procedures are mapping to the STS Term of PA, reconstruction (plasty). And, cardiac procedure, other does not have a STAT score. **Put the PA Plasty in the first place to get the STAT score.**
May 2016: A patient was admitted with a diagnosis of aortic stenosis, subvalvar. As part of the repair, the patient has a myectomy performed but the patient does not carry a diagnosis of IHSS. The only option for identifying a myectomy done as part of a subvalvar repair for aortic stenosis is if the myectomy was done for IHSS. How would I best capture this patient's procedure given he does not have IHSS? **Use 2100; it does not have to be for IHSS only.**
June 2016: Patient goes to OR for temporary pacemaker done by the surgeons then has a Hybrid later in the same admission. Temporary pacemaker is NO CPB Cardiovascular with a STAT score. Am I correct that the pacemaker will be the index operation? Is there anything that could be done differently so that the Hybrid is the index? **Yes, the pacemaker is the index procedure.**
August 2016: How would I best capture a Bentall procedure with re-implantation of coronary arteries? This was a re-do procedure. The child had previously had an aortic root replacement approx 13 years ago. **Coronary re-implantation is an element of a Bentall Procedure (so an additional code for this is not required). If it is truly a Bentall (which includes composite aortic root and aortic valve replacement), would code as "720= Aortic root replacement, Mechanical" or "715= Aortic root replacement, Bioprosthetic" depending on the type of prosthesis.**
August 2016: How would I capture a procedure where only a biopsy of mediastinal lymph nodes and a mediastinal mass was done? The surgeon documented "Chamberlain procedure for biopsy of mediastinal mass." **Use 2020-Thoracic and/or mediastinal procedure, other. You could also use 1860= Mediastinal**

procedure, or 1970= Mediastinal exploration. A Chamberlain Procedure is a "mediastinotomy" that is generally done through a small transverse incision next to the upper sternum, with or without resection of a piece of costal cartilage. Nowadays, a fiber-optic scope may be inserted, though traditionally the mediastinum was explored with surgical instruments, digitally, and with a rigid metal scope designed for this purpose. In most instances, some lymph nodes are sampled.

August 2016: A patient underwent replacement of his Aortic valve with a bioprosthesis. He also required patch enlargement of his aortic root in order to accommodate an appropriate sized valve. How would this procedure best be captured on the DCF? **It depends on the type of annular enlargement: If not done as a Konno procedure, code: 770= Other annular enlargement procedure. This would encompass Nick's, Manougian, and other types of annular enlargement.**

October 2016: A few cases where the Glenn takes over.

I have 3 Ebstein's patients who had Ebstein's repair (stat 1.6) and Glenn (stat 0.5) **The Glenn takes over because of the procedure specific factors.**

Another case of congenitally corrected TGA repair, arterial switch and ASO (double switch) (stat 3.4) with Glenn. **This is correct.**

MAPCA unifocalization (stat 1.6) Rastelli (stat 0.9) and AVC (stat 0.8). **The AVC takes over because of the PSF.**

MVR (stat) and GLenn (0.4) **The Glenn is primary**

A TOF patient, S/P TOF repair current had a tricuspid valvuloplasy, aortic valvuloplasy and VSD. The surgeon wants the tricuspid valvuloplasy to be the primary procedure. **The aortic valvuloplasty is the primary procedure.**

Ebstein's repair patient who had a tricuspid valvuloplasty (stat 0.7) and Glenn (0.5). We would like the tricuspid valvuloplasty to be the primary procedure. **The Ebstein's repair is the primary procedure.**

November 2016: How would I capture a bypass done from the left carotid artery to the left subclavian artery? This was a secondary procedure done during a concomitant pulmonary valve replacement. **You can use 2020 or 2040**

January 2017: I need a procedural code for a right jugular vein to right carotid artery ringed Gore-tex graft shunt that my surgeon performed on a failed fontan with a BDG with ongoing cyanosis. **Use Shunt to Other.**

February 2017: patient had PDA device inserted. The next day it was discovered that the device had embolized into right pulmonary artery. Patient then underwent foreign body retrieval. A week later the patient returned to hospital for surgical closure of PDA. How do I document the status post procedures? Are they 6610 device implantation and 7120 for foreign body removal, or instead of 6610, should it be 7110 for device implantation attempted. **You should document 6610 device implantation and 7120 for foreign body removal.**

February 2017: When a Ross procedure (Stat category 2) is an RV-PA conduit (Stat category 3) assumed as part of that or should it be coded separately**? It is part of the Ross. The Ross is the Primary Procedure. You can include the RV-PA in the valve section.**

April 2017: PA Banding vs. Hybrid bilateral bands- If a patient goes to the OR and undergoes a PA banding, regardless of the patient's diagnosis, I select procedure 1640. However, if the surgical plan includes a staged surgical or combination approach during the same hospitalization, I select 2160. For example, if the notes read the patient is to first undergo PA banding (bilateral banding) and then in the next 24-48 hours will return to the hybrid suite for ductal stenting, I select the hybrid procedure.

Definitions from Specs: 1640 PA banding (PAB) Placement of a pulmonary artery band, any type. **2160 Hybrid Approach "Stage 1", Application of RPA & LPA bands** A "Hybrid Procedure" is defined as a procedure that combines surgical and transcatheter interventional approaches. The term "Hybrid approach" is used somewhat differently than the term "Hybrid Procedure". A "Hybrid approach" is defined as any of a group of procedures that fit into the general silo of procedures developed from the combined use of surgical and

transcatheter interventional techniques. Therefore, not all procedures classified as "Hybrid approach" are truly "Hybrid Procedures".

April 2017: How do you code a "Sano" shunt when it is the primary procedure with no other associated procedures (ie. a TOF with pulmonary atresia that receives a systemic to pulmonary shunt in the form of a "Sano")? If I code the systemic to pulmonary shunt, then it will not be included in my analysis because there is not an associated STAT score. If I choose to code it as an RV to PA conduit, it is a lower STAT score then it should be and it does not represent the intent of the procedure. **Code as RV to PA conduit for now and will need to be addressed with the upgrade.**

June 2017: When we do an arch reconstruction with a BDG we get to list the arch as the primary procedure. When we do an arch reconstruction with a Fontan, we have to list Fontan as primary as it is not listed in the exceptions list. Can we get Fontan added to the exceptions list? **Per the current primary procedure rules, the fontan would be the primary procedure. It will be suggested to be changed in the next upgrade.**

August 2017: What is the difference between a Kawashima Procedure and a Bilateral Bidirectional Glenn? My surgeon wrote both throughout the chart. The diagnosis listed is complex congenital heart disease consisting of the following: heterotaxy syndrome with mirror image dextrocardia, unbalanced right ventricle dominant AV canal, double outlet right ventricle, malposed great vessels, mild pulmonary stenosis, right aortic arch, interrupted inferior vena cava with azygous continuation, bilateral superior vena cavae, and unobstructed pulmonary venous return to a confluence behind the right sided atrium. On his op note, the procedures listed are bilateral bidirectional Glenn and subtotal PA banding. What would be my primary diagnosis and primary procedure? **Kawashima is a type of cavopulmonary anastomosis used when a patient has an interrupted IVC. If a Kawashima was done, enter that procedure. The primary diagnosis is Single ventricle, Heterotexy.**

September 2017: Surgeon is requesting suggestion for coding "RPA translocation (12 mm Gore-Tex graft". Background information: Patient has Truncus-IAA, repaired in 2010, had previous stenting of RPA 2011, 2015, 2017. May 2017 - Had RPA arterioplasty using 8 mm split ringed Gore-Tex graft. Had persistent left lung collapse, therefore had ascending aorta repair May 2017. End of May still had problem with ventilating the left lung, therefore performed Translocation RPA anterior to the ascending aorta to give the bronchus more space between the ascending and descending aorta posteriorly. **There is no current way to code this procedure as a stand-alone procedure. Code as Cardiac, Other.**

September 2017: For the following list of operation, which procedure codes should be used: PREOPERATIVE DIAGNOSES: 1. Distal ascending and proximal arch aortic aneurysm. 2. Marfan syndrome. 3. Status post Bentall type procedure with 27 millimeter Carbomedics mechanical valve composite graft. 4. Status post aortic valve-sparing root replacement with 18 millimeter Hemashield graft, mitral valve repair with 25 millimeter Duran annuloplasty ring, and tricuspid valve repair. POSTOPERATIVE DIAGNOSES: Same. OPERATIONS PERFORMED: 1. Redo sternotomy. 2. Total arch replacement with insertion of 28 millimeter multi-branched Vascutek graft under hypothermic circulatory arrest. 3. Aorta to innominate artery bypass with 8 millimeter Vascutek graft. 4. Aorta to left common carotid artery bypass with 8 millimeter Vascutek graft. **Primary procedure is the aortic arch repair.**

October 2017: When we have coded our Norwood patients, we have always coded the manner of arch reconstruction first and source of pulmonary blood flow second. We have used the Norwood modifier for source of pulmonary blood flow as opposed to palliation, shunt....etc... We are now being told that we cannot use the modifier in the second field as source of pulmonary blood flow and to go back years and correct the data. Is this true? If so, why is the modifier field in place for the Norwood patients? Finally, when one queries the database for number of shunts we get both shunts and index operations and shunts as parts of larger operations, which are complete entities. **This was a change multiple harvests ago (related to mapping of the procedures within the database) asking centers to use only the accepted sources of pulmonary blood flow. Refer to the Report Overview (pg. 19) of the most recent data harvest to see those accepted sources.**

October 2017: We have a very sick child whom has undergone multiple sternal washouts and the surgeon is the one performing all of the wound vac management. The surgeon is performing washouts and wound vac management every three days. Does each washout/ wound vac change get counted as a new case? **Capture all cases the surgeons perform.**

November 2017: Pt born with multiple VSDs and an ASD. S/P PA Banding, Ao Arch Repair and PDA Closure, surgical as newborn. Our surgeon has coded the primary dx for this event ASD, Secundum and the primary procedure as PA Band adjustment and also lists ASD Repair, primary closure. Do we need to change the primary procedure to ASD Repair? **No, primary procedure is PA band adjustment based on the stat scores of the procedures.**

November 2017: Dx: Marfan syndrome and enlarged aortic root/thoracic aortic aneurysm and 2+ aortic valve regurgitation. Procedures include: The valve was then re-implanted within the tube graft and the coronary artery buttons attached to the side with Teflon doughnuts. Would you code 1380-Ao Aneurysm Repair or 735-Ao root replacement, valve sparing, or both? **Code both, with the primary the 735, Aortic root replacement.**

November 2017: How is a revised shunt coded? **Code the same as the initial procedure.**

December 2017: Patient is a few days s/p PA Band and PDA ligation and clip. Echocardiogram shows a gradient between the proximal aorta and the femoral artery in the region of the ductus arteriosus that was previously ligated . Mediastinal exploration is conducted, and one of two PDA clips is removed to relieve the gradient. How would you code the removal of the PDA clip? "Coarctation repair, other"? or something else? **Code as Cardiac, other.**

December 2017: This patient comes in with a history of Aortic Dissection, s/p interposition graft repair. He developed a pseudoaneurysm, which was treated with a TEVAR. Now he presents with a Coarctation through the repaired segment with a significant gradient noted. Operation: Percutaneous access of the right common femoral artery, balloon dilatation of aortic coarctation with 22-mm Atlas high-pressure balloon, aortogram, and repair of recurrent coarctation. Ultrasound guidance for needle placement. How do we best code this case? Do we code 1540=Card Cath, balloon dilation? If so, what case type - Interventional Cardiology or nonCPB Cardiovascular (since surgeon performed case)? **If the surgeon performed the procedure, code cardiac catheterization, balloon dilation. Operation type: Interventional catheterization**

January 2018: The definition for the Ross Procedure says: "Replacement of the aortic valve with a pulmonary autograft and replacement of the pulmonary valve with a homograft conduit." Our surgeons do a reinforced Ross procedure using a Dacron tube graft (for ascending aorta replacement) and bioprosthetic RV-PA conduit, so should I code the RV-PA conduit as well, or not code the Ross at all? If I do code the conduit, will the Ross supersede it even though it has a lower STAT category because it includes the conduit (per your February 2017 FAQ)? Also, I know the STAT mortality scores are based on actual mortality, so how does a Ross procedure, which includes an RV-PA conduit, have a lower STAT mortality score than a RV-PA conduit. **Code the Ross procedure as primary and include the appropriate valve information in the valve section of the database.**

January 2018: Pt has clips placed to reduce volume of a BT shunt. Would you code as "Shunt Reoperation"? A few days later, the mediastinal exploration was conducted and the clips were removed. Is this also "Shunt Reoperation"? **Yes, any procedure done on the shunt would be included as a shunt reoperation.**

January 2018: We have 2 patients with HLHS that went to the OR for a Norwood/Sano. Both patients had unstable arrhythmias upon induction of anesthesia before bypass. The decision was made to band the patients and give them time to be medically managed. The first surgery was then coded as op type NoCPBCV and procedure 2160- Hybrid approach "stage 1" Application of RPA and LPA bands was chosen. The duct was not stented but was kept open medically with prostaglandins in anticipation of full Norwood procedures. This procedure falls in STAT category 4. Both patents remained on prostaglandins in the ICU and then returned to the OR for successful Norwood/Sano procedures. Our question is did we code this correctly and if so, will these patients show up in our report as STAT 4 patients even though they had STAT 5 procedures done? How can we

get credit for the STAT 5 procedures that were performed during this hospitalization? **Yes, these are coded correctly. The index procedure will be the hybrid procedure as it was the first CPB or No CPB cardiovascular case of the admission. Unfortunately, the STAT category 5 procedures that follow will not be included in the analysis as the index operation.**

February 2018: A patient admitted with a sternal dehiscence underwent a sternal debridement and re-wire of the sternum. There was no infection present. I use the short list. What would be the best option for the primary procedure? Would this be considered a no CPB cardiovascular case? **Use #1980, sternotomy, wound drainage. Operation Type is No CPB cardiovascular.**

February 2018: A patient arrived to our PICU in cardiogenic shock and was cannulated to VA ECMO via the carotid artery and jugular vein. The patient then went to cath lab for an atrial septostomy by the cardiologist which was unsuccessful and resulted in a perforation of the right atrium. The CVT surgeon was called to the cath lab and opened the patient's sternum and inserted an ECMO cannula into the left atrium (for LV decompression) and also repaired the suspected site of atrial perforation with a suture. How would I best capture the procedures done by the surgeon in cath lab? I selected 'ECMO cannulation' and 'cardiac procedure other' for the LA repair. My choices don't seem adequate to reflect the sternotomy with open cannulation and repair of the LA. Is there a better way to capture these procedures? I work with the short list. Also, would this be considered an ECMO procedure or a no CPB cardiovascular case?

Dx: Cath lab complication
Procedure: Cardiac, other
Op type: **ECMO**

February 2018: Patient is taken back to the OR one day s/p Norwood - BT shunt. How should the following procedures be coded? Procedure: takedown and revision of Damus, revision of proximal coronary anastamosis, and arch reconstruction. Should this second operation be coded as a Norwood? Or would you code it as Aortic Arch repair, Shunt reoperation, and Coronary artery procedure, Other? **Include the actual procedures that were completed: Aortic Arch repair and Coronary artery procedure, Other. Do not code as a Norwood.**

March 2018: Is it correct to code "Ebstein's Repair" as the primary procedure for all Ebstein related repairs? And, does this include re-interventions? I think this is what the specs say (in order to assure an accurate count of these repairs), but the definitions pre-date the primary rule for using Ebstein's repair when done with other procedures of a higher STAT category/score so I just want to make sure this is still the correct interpretation. **When Primary Ebstein's Repair or reoperation of an already repaired Ebstein Valve, Ebstein's Repair procedure is done it should be the primary procedure. STAT categories will be readdressed at a later date with the Task Force.**

April 2018: This patient is a 2.6kg ex-26 week gestation premature infant who is currently 38 weeks of gestation. This patient was diagnosed with bilateral ductus arteriosus, left aortic arch, RPA arising from innominate artery with a right ductal tissue interposition. The first procedure was ligation of the left ductus at 2 weeks of life weighing 1.0kg. Now at 2.6kg (in a second surgery) the diminutive and anomalous RPA was augmented using autologous pericardium and Gore- Tex then reimplanted to the main PA. I am struggling to properly code the diagnosis and procedure of this second surgery. I have seen PA re-implantation, but it has no STAT score. **The best diagnosis of the second surgery is pulmonary artery, discontinuous (470). The primary procedure for the second surgery PA reconstruction, Branch, Peripheral. The index operation is the first surgery of the hospitalization (PDA ligation) and this patient will be excluded from the mortality analysis based on the procedure being PDA ligation in a patient less than 2.5kg.**

April 2018**:** Dx: Ascending aortic aneurysm, bicuspid/unicuspid aortic valve with severe aortic insufficiency, and moderate aortic stenosis.

Procedure: aortic valve replacement with a 27 mm Carpentier- Edwards bioprosthesis and ascending aortic replacement with a 28 mm Dacron graft. Are we to code just the Root Replacement (715) or code the AVR (690)

as well? **Code all procedures that are done in the operative setting. Based on this information, this looks like aortic aneurysm repair and an aortic valve replacement.**
April 2018**:** How would I best capture the following procedures: Arterial switch operation, VSD closure with a PhotoFix bovine pericardial patch, ASD closure with PhotoFix bovine pericardial patch and PDA ligation and division? In the operative note the surgeon also mention that he performed a Lecompte Maneuvre.
Arterial switch + VSD repair is the primary procedure. Include the other repairs completed as secondary procedures. In the long list you can also find the Lecompte manuevre as a modifier to the arterial switch.
June 2018: Patient had CorMatrix cylinder valve placed and has remained hospitalized since with respiratory issues and viral infections. Now 6 months later due to increased mitral regurgitation along with right sided pressures she underwent a hybrid valve in valve procedure (with "direct intra-cardiac visualization) with a folded Melody valve. Per surgeon's note: "this was the plan when the valve required replacement". How do I code this procedure? "Hybrid Approach, Transcardiac, transcatheter device placement"? Can I call this planned?
This should be coded as 850 Mitral Valve Replacement, and should be coded as an unplanned cardiac reoperation.
June 2018: We have a patient with a diagnosis of Pulmonary atresia, VSD-MAPCA (code 350) who had a repair of everything but her MAPCAs (which have never been unifocalized). Do I just code procedure as Pulmonary Atresia - VSD (including TOF, PA) repair (code 420) even though the definition says "For patients with pulmonary atresia with ventricular septal defect without MAPCAs"?
This should be coded as Pulmonary Atresia – VSD (Including TOF, PA) repair, procedure code 420, as the MAPCA's were not significant enough to operate on.
August 2018**:** Pt with HLHS variant cardiac exploration 1vs2v repair: initially tried for BiV, then converted to hybrid physiology fenestrated and, EFE resection. I know it isn't the primary procedure, but was wondering how to code the EFE resection? **Cardiac procedure, Other (code 2010) in the short list.**
August 2018**:** An infant was born at 28 weeks GA with complete heart block. Her heart block was unresponsive to meds and external pacing, so on DOL 3 the decision was made to place temporary internal pacing wires due to the patient showing significant signs of shock. The patient weighed 1.050 kg at the time of surgery. In the NICU the patient underwent median sternotomy with placement of 2 temporary pacer wires on the surface of her right ventricle. Since these were temporary pacing wires, I am unsure of the correct procedure to code. We use the short list. Thanks for your help. **Pacemaker, procedure or Pacemaker, insertion**
August 2018**:** A patient was born with a superior sternal cleft. A reconstruction of the sternum was performed to repair this. I am unsure of the best choice for diagnosis and procedure and would appreciate your help.
Diagnosis and procedure are both: Thoracic or Mediastinal, Other

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SeqNo:	940
Long Name:	Primary Procedure Indicator
Short Name:	PrimProc
Database Table Name:	Procedures
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether this procedure is considered the PRIMARY Procedure performed during this operation. Note that the primary procedure is determined at the data warehouse using the methodology published in the Journal of Thoracic and Cardiovascular Surgery ("An empirically based tool for analyzing mortality associated with congenital heart surgery"

Sean M. O'Brien, David R. Clarke, Jeffrey P. Jacobs, Marshall L. Jacobs, Francois G. Lacour-Gayet, Christian Pizarro, Karl F. Welke, Bohdan Maruszewski, Zdzislaw Tobota, Weldon J. Miller, Leslie Hamilton, Eric D. Peterson, Constantine Mavroudis and Fred H. Edwards J Thorac Cardiovasc Surg 2009;138:1139-1153 DOI:10.1016/j.jtcvs.2009.03.071). If the above methodology does not return a primary procedure, this field will be used to designate primary procedure.

12/2015: What is the primary procedure when a patient undergoes the following repairs during the same operative setting: tricuspid valvuloplasty, pulmonary valvuloplasty, patch VSD repair, primary closure ASD PFO? The tricuspid valve repair has the highest STAT score but when completed in the setting of the VSD repair, the VSD would be designated as primary. How is this rule impacted with the pulmonary valve repair? **Code as VSD**
February 2016: I don't see the Kawashima operation on our PSF list but it is technically superior cavo with unilateral bidirectional… shouldn't it have one? No. **Patients should not be coded as Glens**
April 2016: What is the primary procedure in the following scenario: The surgeon initially places a central shunt and separates from bypass. Subsequently, the patient declines and is replaced on bypass, the central shunt is taken down and a modified BT shunt is instead placed. I want to be accurate in my coding and list all procedures that were completed, however the central shunt would be considered the primary procedure and the patient never left the operating room with one. **Code BT Shunt as primary**
May 2016: Operative diagnosis: Sinus venosus ASD, PAPVR, secundum ASD. Procedure: Patch closure of secundum ASD, atrial septectomy, repair of PAPVR using atrial baffle. Sinus venosus ASD left alone due to small size. How should this operation be coded? **Use 260; PAPVC repair; only code the PAPVR. Do not code the ASD patch closure.**
December 2016: I have two patients that underwent a bilateral bidirectional Glenn procedure AND a TAPVR repair within the same operation. What is the appropriate way to code this? We do not want to lose out on a STAT 4 category procedure, but my understanding is that due to procedure specific factors, the Glenn will be the primary procedure however the TAPVR is a higher STAT score. This is similar to when a DKS is performed at the same time as a Glenn and it was recently discussed in the AQO meeting that an exception will be made for this combination when analyzed by DCRI. Is there any chance that a TAPVR repair can be made as an exception as well? **The Glenn is the Primary Procedure.**
January 2018: Am I able to choose a PA Reconstruction, Branch, Central as the primary procedure if it was done along with a PV replacement for PI? (Higher STAT score). The surgeon also listed the Pulmonary artery stenosis as one of the diagnoses. Couldn't find any exception re: this scenario in the manual or interpretation guide. FYI, the procedure codes used were: 600, 510, 530, 540, 10. Dx codes: 530, 440, 10, 4360, 5590. **The procedure with the highest STAT score will be the primary procedure.**
August 2018**:** Patient had symptomatic with a right innominate artery aneurysm, left carotid artery aneurysm, a large ascending aortic aneurysm, transverse aortic arch aneurysm, severe aortic valve stenosis and moderate aortic valve insufficiency. He underwent a Bentall procedure with a 23mm On-X aortic valve, replacement of the ascending aorta and transverse aortic arch with custom constructed branched graft along with right innominate and left carotid artery de-branching. What is the correct primary procedure? 1380 an aortic aneurysm repair? If so, this is a STAT2 and my surgeon is saying this was one of the hardest surgeries he has ever done.
Code all of the component procedures of the operation but due to the need to replace/repair the transverse arch, code the primary procedure as an aortic arch reconstruction.

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10. Procedure-Specific Factors

SeqNo: 949

Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Short Name:	PSFPrimProc
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate which, if any, of the following "benchmark operations" was the primary procedure for this operation.

SeqNo: 950

Long Name:	Procedure-Specific Factors - Apical VSD
Short Name:	PSFApicalVSD
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Apical VSD was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "VSD repair, Primary closure", "VSD repair, Patch", "VSD repair, Device", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

October 2016: Can you please tell me the difference between Apical VSD and Straddling AV valve. And, do we need to document on both Sequence #950 and #951 whether the VSD repair is primary closure, patch or device? **The Cardiologist or ECHO report should document whether it is an Apical VSD or a Straddling AV valve. Yes, both seq. 950 and 951 should be documented 'Yes' or 'No'.**

SeqNo: 951

Long Name:	Procedure-Specific Factors - Straddling AV valve
Short Name:	PSFStradAVVal
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Straddling AV valve was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "VSD repair, Primary closure", "VSD repair, Patch", "VSD repair, Device", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 952

Long Name:	Procedure-Specific Factors - Major coronary crossing RVOT - Coronary anomaly restricting RVOT enlargement, (LAD from RCA etc.)
Short Name:	PSFMajCorRVOT
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Major coronary crossing RVOT - Coronary anomaly restricting RVOT enlargement, (LAD from RCA etc.) was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair", "TOF repair, No ventriculotomy", "TOF repair, Ventriculotomy, Nontransanular patch", "TOF repair, Ventriculotomy, Transanular Patch", "TOF repair, RV-PA conduit", "TOF - Absent pulmonary valve repair", "Pulmonary atresia

SeqNo: 953

Long Name:	Procedure-Specific Factors - VSD, Multiple, Repair
Short Name:	PSFVSDMultRep
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether VSD, Multiple, Repair was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair", "TOF repair, No ventriculotomy", "TOF repair, entriculotomy, Nontransanular patch", "TOF repair, Ventriculotomy, Transanular patch", "TOF repair, RV-PA conduit", "TOF - Absent pulmonary valve repair", "Pulmonary atresia

SeqNo: 954

Long Name:	Procedure-Specific Factors - Restrictive VSD
Short Name:	PSFRestrictVSD
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Restrictive VSD was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair", "TOF repair, No ventriculotomy", "TOF repair, Ventriculotomy, Nontransanular patch", "TOF repair, Ventriculotomy, Transanular patch", "TOF repair, RV-PA conduit", "TOF - Absent pulmonary valve repair", "Pulmonary atresia

SeqNo: 955

Long Name:	Procedure-Specific Factors - Hypoplastic branch pulmonary arteries (diminished pulmonary vascular bed)
Short Name:	PSFHypoBrPulmArt
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Hypoplastic branch pulmonary arteries (diminished pulmonary vascular bed) was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair", "TOF repair, No ventriculotomy", "TOF repair, Ventriculotomy, Nontransanular patch", "TOF repair, Ventriculotomy, Transanular patch", "TOF repair, RV-PA conduit", "TOF - Absent pulmonary valve repair", "Pulmonary atresia

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SeqNo: 956

Long Name:	Procedure-Specific Factors - AV Valve regurgitation grade 3 and 4 (Severe AV Valve regurgitation)
Short Name:	PSFAVRegurg34
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether AV Valve regurgitation grade 3 and 4 (Severe AV Valve regurgitation) was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair", "AVC (AVSD) repair, Complete (CAVSD)", "Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn)", "Glenn (unidirectional cavopulmonary anastomosis) (unidirectional Glenn)", "Bilateral bidirectional

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SeqNo: 957

Long Name:	Procedure-Specific Factors - Double orifice left atrioventricular valve
Short Name:	PSFDoubOrif
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Double orifice left atrioventricular valve was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair" or "AVC (AVSD) repair, Complete (CAVSD)"

SeqNo: 958

Long Name:	Procedure-Specific Factors - Single papillary muscle in the left ventricle and/or parachute left atrioventricular valve
Short Name:	PSFSingPap
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Single papillary muscle in the left ventricle and/or parachute left atrioventricular valve was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair" or "AVC (AVSD) repair, Complete (CAVSD)"

SeqNo: 959

Long Name:	Procedure-Specific Factors - Hypoplastic posterior mural leaflet
Short Name:	PSFHypoPostMLeaf
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Hypoplastic posterior mural leaflet was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair" or "AVC (AVSD) repair, Complete (CAVSD)"

SeqNo: 960

Long Name:	Procedure-Specific Factors - Atrioventricular septal defect with ventricular imbalance: dominant left ventricle, hypoplastic right ventricle
Short Name:	PSFASDDomLeft
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Atrioventricular septal defect with ventricular imbalance: dominant left ventricle and hypoplastic right ventricle was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair" or "AVC (AVSD) repair, Complete (CAVSD)"

SeqNo: 961

Long Name:	Procedure-Specific Factors - Atrioventricular septal defect with ventricular imbalance: dominant right ventricle, hypoplastic left ventricle
Short Name:	PSFASDDomRight
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)

Definition:	Indicate whether Atrioventricular septal defect with ventricular imbalance: dominant right ventricle and hypoplastic left ventricle was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair" or "AVC (AVSD) repair, Complete (CAVSD)"

SeqNo: 962

Long Name:	Procedure-Specific Factors - Common atrioventricular valve with unbalanced commitment of valve to left ventricle
Short Name:	PSFCAVLeft
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Common atrioventricular valve with unbalanced commitment of valve to left ventricle was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair" or "AVC (AVSD) repair, Complete (CAVSD)"

SeqNo: 963

Long Name:	Procedure-Specific Factors - Common atrioventricular valve with unbalanced commitment of valve to right ventricle
Short Name:	PSFCAVRight
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Common atrioventricular valve with unbalanced commitment of valve to right ventricle was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "TOF - AVC (AVSD) repair" or "AVC (AVSD) repair, Complete (CAVSD)"

SeqNo: 964

Long Name:	Procedure-Specific Factors - Moderate to severe systemic ventricular dysfunction
Short Name:	PSFModSevSVD
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Moderate to severe systemic ventricular dysfunction was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc

Parent Value(s):	= "Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn)", "Glenn (unidirectional cavopulmonary anastomosis) (unidirectional Glenn)", "Bilateral bidirectional cavopulmonary anastomosis (BBDCPA) (bilateral bidirectional Glenn)", "HemiF

SeqNo:	965
Long Name:	Procedure-Specific Factors - Systemic ventricular outflow tract obstruction (subaortic obstruction)
Short Name:	PSFSysVentObs
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Systemic ventricular outflow tract obstruction (subaortic obstruction) was a factor.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn)", "Glenn (unidirectional cavopulmonary anastomosis) (unidirectional Glenn)", "Bilateral bidirectional cavopulmonary anastomosis (BBDCPA) (bilateral bidirectional Glenn)", HemiF

SeqNo:	966
Long Name:	Procedure-Specific Factors - Ventricular dominance
Short Name:	PSFVentDom
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate ventricular dominance.
Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn)", "Glenn (unidirectional cavopulmonary anastomosis) (unidirectional Glenn)", "Bilateral bidirectional cavopulmonary anastomosis (BBDCPA) (bilateral bidirectional Glenn)", HemiF

SeqNo:	970
Long Name:	Procedure-Specific Factors - Posterior coronary loop: circumflex coming off the RCA
Short Name:	PSFPostLoopCirc
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Posterior coronary loop: circumflex coming off the RCA was a factor.

Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 971

Long Name:	Procedure-Specific Factors - Posterior Coronary Loop: left trunk coming off the RCA
Short Name:	PSFPostLoopLeftTrunc
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Posterior Coronary Loop: left trunk coming off the RCA was a factor.

Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 972

Long Name:	Procedure-Specific Factors - Double Coronary Loops
Short Name:	PSFDoubleLoops
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Double Coronary Loops (inverted origin of right and left coronary arteries) was a factor.

Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 973

Long Name:	Procedure-Specific Factors - Single Coronary Ostium
Short Name:	PSFSingOst
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Single coronary ostium was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 974
Long Name: Procedure-Specific Factors - Intramural coronary
Short Name: PSFIntramuralCor
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Intramural coronary was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 975
Long Name: Procedure-Specific Factors - Large infundibular coronary artery from LAD
Short Name: PSFLgInfundArt
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Large infundibular coronary artery from LAD was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 976
Long Name: Procedure-Specific Factors - Malaligned commissures
Short Name: PSFMalComm
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Malaligned commissures was a factor.

Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 977

Long Name:	Procedure-Specific Factors - Take down of a commissure
Short Name:	PSFTakeDownComm
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Take down of a commissure was a factor.

Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 978

Long Name:	Procedure-Specific Factors - Aorto-pulmonary diameter mismatch
Short Name:	PSFAortoPulMis
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether Aorto-pulmonary diameter mismatch was a factor.

Parent Long Name:	Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name:	PSFPrimProc
Parent Value(s):	= "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

July 2018: How much of a difference in size is considered an aorto-pulmonary mismatch? Sometimes there's a very large mismatch and the surgeon makes a note of it, but he doesn't know when to consider it a mismatch, and there is no definition. Is there a mm difference or % you're looking for? **Currently there is no definitive criteria for qualifying the mismatch. For now, if the surgeon mentions the mismatch, code aorto-pulmonary mismatch as yes.**

SeqNo: 979

Long Name:	Procedure-Specific Factors - Side by side vessels
Short Name:	PSFSideBySide
Database Table Name:	Operations

Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Side by side vessels was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 980
Long Name: Procedure-Specific Factors - Posterior native aorta
Short Name: PSFPostNatAorta
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Posterior native aorta was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 981
Long Name: Procedure-Specific Factors - Subaortic obstruction/ conal septum malalignment
Short Name: PSFSubAObs
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Subaortic obstruction / conal septum malalignment was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 982
Long Name: Procedure-Specific Factors - Bicuspid native aortic valve (Bicuspid neopulmonary valve)
Short Name: PSFBicusNatAortic
Database Table Name: Operations
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate whether Bicuspid native aortic valve (Bicuspid neopulmonary valve) was a factor.
Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 983
Long Name: Procedure-Specific Factors - Bicuspid native pulmonary valve (Bicuspid neoaortic valve)
Short Name: PSFBicusNatPulm
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Bicuspid native pulmonary valve (Bicuspid neoaortic valve) was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Arterial switch operation (ASO)", "Arterial switch procedure + Aortic arch repair", "Arterial switch operation (ASO) and VSD repair" or "Arterial switch procedure and VSD repair + Aortic arch repair"

SeqNo: 984
Long Name: Procedure-Specific Factors - Truncus type 3 (PA Branches from PDA or descending aorta)
Short Name: PSFTruncType3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Truncus type 3 (PA Branches from PDA or descending aorta) was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Truncus arteriosus repair" or "Truncus + Interrupted aortic arch repair (IAA)

SeqNo: 985
Long Name: Procedure-Specific Factors - Abnormal coronary
Short Name: PSFAbnormalCor
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Abnormal coronary was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Truncus arteriosus repair" or "Truncus + Interrupted aortic arch repair (IAA)

SeqNo: 986
Long Name: Procedure-Specific Factors - Truncal valve regurgitation (moderate to severe)
Short Name: PSFTruncValRegurg
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Truncal valve regurgitation (moderate to severe) was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Truncus arteriosus repair" or "Truncus + Interrupted aortic arch repair (IAA)

SeqNo: 987
Long Name: Procedure-Specific Factors - Truncal Valve stenosis (moderate to severe)
Short Name: PSFTruncValSten
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Truncal valve stenosis (moderate to severe) was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Truncus arteriosus repair" or "Truncus + Interrupted aortic arch repair (IAA)

SeqNo: 988
Long Name: Procedure-Specific Factors - Source of pulmonary blood flow: Shunt - systemic artery-to-pulmonary artery
Short Name: PSFSrcPulFloShuntSys
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Source of pulmonary blood flow: Shunt - systemic artery-to-pulmonary artery was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc

Parent Value(s): = "Norwood procedure"

SeqNo: 989
Long Name: Procedure-Specific Factors - Source of pulmonary blood flow: Shunt - ventricle-to-pulmonary artery
Short Name: PSFSrcPulFloShuntVent
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Source of pulmonary blood flow: Shunt - ventricle-to-pulmonary artery was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 990
Long Name: Procedure-Specific Factors - Source of pulmonary blood flow: Superior caval vein-to-pulmonary
Short Name: PSFSrcPulFloSuper
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Source of pulmonary blood flow: Superior caval vein-to-pulmonary artery was a factor.
Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 991
Long Name: Procedure-Specific Factors - Ascending aorta < 2 mm
Short Name: PSFAscAortaLT2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Ascending aorta < 2 mm was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 992
Long Name: Procedure-Specific Factors - Aortic atresia
Short Name: PSFAortAtresia
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Aortic atresia was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 993
Long Name: Procedure-Specific Factors - Aortic stenosis
Short Name: PSFAortSten
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Aortic stenosis was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 994
Long Name: Procedure-Specific Factors - Mitral atresia
Short Name: PSFMitralAtresia
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Mitral atresia was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 995
Long Name: Procedure-Specific Factors - Mitral stenosis
Short Name: PSFMitralSten
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)

Definition: Indicate whether Mitral stenosis was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 996
Long Name: Procedure-Specific Factors - Sinusoids
Short Name: PSFSinusoids
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the presence of sinusoids was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 997
Long Name: Procedure-Specific Factors - Intact atrial septum
Short Name: PSFIntactAtrSep
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Intact atrial septum was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 998
Long Name: Procedure-Specific Factors - Obstructed pulmonary venous return with severely restrictive ASD
Short Name: PSFObsPulVenRet
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Obstructed pulmonary venous return with severely restrictive ASD was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc

Parent Value(s): = "Norwood procedure"

SeqNo: 999
Long Name: Procedure-Specific Factors - Aberrant right subclavian artery
Short Name: PSFAberrantRtSubclav
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Aberrant right subclavian artery was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Norwood procedure"

SeqNo: 1001
Long Name: Procedure-Specific Factors - TV Repair
Short Name: PSFTVRep
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether TV Repair was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

SeqNo: 1002
Long Name: Procedure-Specific Factors - TV Repair - Monocusp
Short Name: PSFTVRepMono
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether TV Repair - Monocusp was a factor.

Parent Long Name: Procedure-Specific Factors - TV Repair
Parent Short Name: PSFTVRep
Parent Value(s): = "Yes"

12/2015: If a patient has a VAD, and then gets a heart transplant and has the VAD removed during the same operation, what should the OpType be coded as? According to the STS definition of VAD with CPB, it says that it includes operations to insert or remove the VAD. So should it be VAD with CPB or should it just be CPB? **It should be CPB. Even if patient comes in on VAD or ECMO it is still CPB**.

February 2016: I am unclear about coding the operation type for a patient whose procedure was aborted after skin incision. The only thing that was performed was a thoracotomy. The patient decompensated after skin incision and nothing further was done. Should this be coded as operation type: Thoracic or as the originally intended procedure of NO CPB Cardiovascular? **Code as Op Type-Other.**

February 2016: Mortality case where 1st procedure, primary procedure was VAD w/CPB (salvage case, as pt was on ECMO at time of OR). Additionally had ASD repair at time of VAD implant(atrial fenestration closure as atrial septectomy performed at bedside prior to VAD not by our surgeons). Op type was VAD w/ CPB. 2nd procedure ECMO decan and delayed sternal closure, which was coded as ECMO procedure. Question is once case goes to DCRI for analysis, will the primary procedure be changed to ASD repair instead of VAD implant which will change the Op type to CPB case and will move this in mortality analysis. **DCRI does not change the OP type. VAD=only cases that go to OR for VAD.**

SeqNo: 1004
Long Name: Procedure-Specific Factors - TV Repair - Bileaflet Repair
Short Name: PSFTVRepBileaf
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether TV Repair - Bileaflet Repair was a factor.

Parent Long Name: Procedure-Specific Factors - TV Repair
Parent Short Name: PSFTVRep
Parent Value(s): = "Yes"

SeqNo: 1006
Long Name: Procedure-Specific Factors - TV Repair - Cone Repair - 360 Degrees Leaflet Approximation
Short Name: PSFTVRepCone
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether TV Repair - Cone Repair - 360 Degrees Leaflet Approximation was a factor.

Parent Long Name: Procedure-Specific Factors - TV Repair
Parent Short Name: PSFTVRep
Parent Value(s): = "Yes"

SeqNo: 1008
Long Name: Procedure-Specific Factors - Sebening Stitch (Anterior RV Papillary Muscle To Ventricular Septum)
Short Name: PSFSebening

Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Sebening Stitch (Anterior RV Papillary Muscle To Ventricular Septum) was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

SeqNo: 1009
Long Name: Procedure-Specific Factors - Annular Reduction
Short Name: PSFAnnRed
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Annular Reduction was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

SeqNo: 1010
Long Name: Procedure-Specific Factors - Annular Reduction - Plication
Short Name: PSFAnnRedPlic
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Annular Reduction - Plication was a factor.

Parent Long Name: Procedure-Specific Factors - Annular Reduction
Parent Short Name: PSFAnnRed
Parent Value(s): = "Yes"

SeqNo: 1012
Long Name: Procedure-Specific Factors - Annular Reduction - Partial Ring (C-Shaped Anterior And Inferior
Short Name: PSFAnnRedPartial
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Annular Reduction - Partial Ring (C-Shaped Anterior And Inferior Annulus) was a factor.

Parent Long Name: Procedure-Specific Factors - Annular Reduction
Parent Short Name: PSFAnnRed
Parent Value(s): = "Yes"

SeqNo: 1014
Long Name: Procedure-Specific Factors - Annular Reduction - Eccentric Ring (Inferior Annulus)
Short Name: PSFAnnRedEccent
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Annular Reduction - Eccentric Ring (Inferior Annulus) was a factor.

Parent Long Name: Procedure-Specific Factors - Annular Reduction
Parent Short Name: PSFAnnRed
Parent Value(s): = "Yes"

SeqNo: 1016
Long Name: Procedure-Specific Factors - Atrialized RV Plication
Short Name: PSFAtrialRVPlic
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Atrialized RV Plication was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

SeqNo: 1018
Long Name: Procedure-Specific Factors - Atrialized RV Resection
Short Name: PSFAtrialRVRes
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Atrialized RV Resection was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

SeqNo: 1020
Long Name: Procedure-Specific Factors - ASD/PFO Closure

Short Name: PSFASDPFO
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether ASD/PFO Closure was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

SeqNo: 1022
Long Name: Procedure-Specific Factors - Reduction Atrioplasty
Short Name: PSFRedAtrio
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Reduction Atrioplasty was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

SeqNo: 1023
Long Name: Procedure-Specific Factors - Arrhythmia Surgery
Short Name: PSFArrSurg
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Arrhythmia Surgery was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors - Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

SeqNo: 1024
Long Name: Procedure-Specific Factors - Arrhythmia Surgery - Cavotricuspid Isthmus Ablation
Short Name: PSFArrSurgCavo
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Arrhythmia Surgery - Cavotricuspid Isthmus Ablation was a factor.

Parent Long Name: Procedure-Specific Factors - Arrhythmia Surgery
Parent Short Name: PSFArrSurg
Parent Value(s): = "Yes"

SeqNo: 1026
Long Name: Procedure-Specific Factors - Arrhythmia Surgery - Modified Right Atrial Maze
Short Name: PSFArrSurgModMaze
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Arrhythmia Surgery - Modified Right Atrial Maze was a factor.

Parent Long Name: Procedure-Specific Factors - Arrhythmia Surgery
Parent Short Name: PSFArrSurg
Parent Value(s): = "Yes"

SeqNo: 1028
Long Name: Procedure-Specific Factors - Arrhythmia Surgery - Left Atrial Cox Maze
Short Name: PSFArrSurgCoxMaze
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Arrhythmia Surgery - Left Atrial Cox Maze was a factor.

Parent Long Name: Procedure-Specific Factors - Arrhythmia Surgery
Parent Short Name: PSFArrSurg
Parent Value(s): = "Yes"

SeqNo: 1030
Long Name: Procedure-Specific Factors - Arrhythmia Surgery - Pulmonary Vein Isolation
Short Name: PSFArrSurgPulmIso
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Arrhythmia Surgery - Pulmonary Vein Isolation was a factor.

Parent Long Name: Procedure-Specific Factors - Arrhythmia Surgery
Parent Short Name: PSFArrSurg
Parent Value(s): = "Yes"

SeqNo: 1032

Long Name: Procedure-Specific Factors - Bidirectional Cavopulmonary Anastomosis
Short Name: PSFBiCavoAnast
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Bidirectional Cavopulmonary Anastomosis was a factor.

Parent Long Name: Procedure-Specific Factors - Procedure-Specific Factors – Primary Procedure
Parent Short Name: PSFPrimProc
Parent Value(s): = "Ebstein's repair"

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11. Operative

SeqNo: 1054
Long Name: Procedure Location
Short Name: ProcLoc
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the location where the operation/procedure was performed.

SeqNo: 1055
Long Name: Status
Short Name: Status
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the clinical status of the patient prior to entering the operating room.

April 2018: How would you code a planned delayed chest washout/closure? Would it be considered "urgent" seeing as the chest is "open"...OR, would it be considered elective, seeing as it was a planned and an expected case? The definition states "indicate the clinical status of the patient prior to entering the operating room." Doesn't give me much perspective on what qualifies as "urgent" and what doesn't. **Code delayed sternal closures as urgent since the patient cannot go home without a chest closure.**

SeqNo: 1056
Long Name: Operation Type
Short Name: OpType
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)

Definition: Indicate the type of primary surgical procedure performed.

Harvest Codes and Value Definitions:

Code:	Value:	Definition:
1	CPB Cardiovascular	If the procedure is cardiovascular (includes the heart, great vessels, or any branches of the great vessels), and cardiopulmonary bypass is used, this should be chosen as the case category. Do not choose this case category for operations that are not cardiovascular, even if cardiopulmonary bypass is used *(see Op Type 9, below*) Most lung transplants involve anastomosis to the left atrium (as well as anastomosis to distal main PA or central branch PA). I would consider this a cardiovascular procedure. Transplant, Lung(s) is a STAT Category 3 procedure ~~If cardiopulmonary bypass is used, this must be chosen as the case category whether the procedure is thoracic (e.g., tracheal reconstruction) or cardiovascular in nature.~~
2	No CPB Cardiovascular	If the procedure is cardiovascular, but cardiopulmonary bypass is not used, this must be chosen as the case category. This includes any procedure that includes the heart, great vessels, or any of the branches from the great vessels, where CPB is not used. Examples include but are not limited to: coarctation of the aorta repair, creation of a systemic-to-pulmonary artery shunt, patent ductus arteriosus ligation. A delayed sternal closure is included in this category. ~~If a pericardial window done for cancer, it should be classified as a Cardiac Operation (Operation type = No CPB Cardiovascular).~~ • *pericardial drainage/pericardial window procedure for cancer = Thoracic Procedure* • *pericardial drainage/pericardial window procedure for cardiac disease = No CPB Cardiovascular*
9	CPB Non-Cardiovascular	Procedures that are done with bypass support that do not involve a concomitant cardiovascular procedure. For example, tracheal surgery, neurosurgical procedures, resuscitation and rewarming of drowning victims. These cases are not included in the numerator or denominator of mortality calculations or reports. Tracheal reconstructions done on CPB, without a concomitant cardiovascular procedure are Op Type 9 - CPB Non-cardiovascular. This would pertain, for example to a slide tracheoplasty or tracheal patch-plasty done on CPB. But, if the operation also includes a cardiovascular procedure (as

		in operation for PA sling with both tracheal repair and division/reimplantation of pulmonary artery), then it would be CPB Cardiovascular.
3	ECMO	If ECMO cannulation or decannulation is the primary procedure performed, this category must be chosen. However, if ECMO is initiated for support at the end of another type procedure (i.e., CPB, No CPB Cardiovascular), that procedure takes precedence and the category code would not be ECMO.
4	Thoracic	If a procedure is performed on a structure within the chest cavity but does not involve the cardiac chambers or vessels, it would be a Thoracic category case (for example, lobectomy, pectus excavatum/carinatum repair, anterior spine exposure). There will be thoracic cases that require cardiopulmonary bypass (e.g., some types of tracheal reconstructions). In those cases, the use of cardiopulmonary bypass takes precedence and the case would not be Thoracic, but ~~CPB~~ rather CPB Non-Cardiovascular.
5	Interventional Cardiology	If an interventional device (e.g., occluder, stent) is placed in the operating room as the primary procedure performed, this category must be chosen. However, if in the course of another type procedure (i.e., CPB, No CPB Cardiovascular), an interventional device is placed in addition to the other procedure, the other category takes precedence and the case would not be Interventional Cardiology.
6	VAD Operation Done With CPB	Ventricular Assist Device procedure done with CPB. This includes operations to insert the VAD or to remove the VAD
7	VAD Operation Done Without CPB	Ventricular Assist Device procedure done without CPB. This includes operations to insert the VAD, to remove the VAD, or any procedure performed while on the VAD.
8	Non-cardiac, Non-thoracic procedure on cardiac patient with cardiac anesthesia	Any non-cardiac or non-thoracic procedure such as a general surgical procedure with anesthesia provided by cardiac anesthesiology because of the patient's underlying cardiac physiology.
777	Other	All other procedures that do not fall within the above definitions should be coded as category Other. This would include but not be limited to supportive minor procedures (e.g., line placements)

ECMO or CPB Examples

Procedures performed while a patient is on ECMO can be coded as Op Type "ECMO" ***if they are done exclusively for the purpose of facilitating ECMO support.***

A patient is admitted to the hospital and requires emergent ECMO cannulation. The next day the patient is taken to the OR for BT Shunt placement done on ECMO. Op Type?

> **If the BT Shunt is done on ECMO, this should be coded as Op Type CPB because the ECMO circuit is functioning as a CPB circuit in this situation.**

A patient who winds up on ECMO and has a shunt revision while on ECMO support is a ***different type of scenario***, and under those circumstances it is most likely that the procedure "shunt revision" ***should be considered to be of Op Type CPB, with the understanding that ECMO circuit is being used to provide CPB support.***

If the patient was transitioned from ECMO to bypass in the OR and then transitioned back to ECMO at the end of the case you would code the **op type as CPB with the pre-op risk factor of ECMO and the post-op complication of ECMO.**

If the patient was de-cannulated from ECMO prior to the placement of the shunt and the shunt was done with no support you would code the Op Type as **No CPB Cardiovascular**.

Patient arrives in CVICU and needs cannulation on ECMO. The consent and discussion with the family is for ECMO. Patient is cannulated for ECMO in the OR and during the procedure it is noted that the patient has excessive pulmonary blood flow and needs a PAB to help control pulmonary blood flow and the patient is better supported on ECMO.

> **This situation would be coded as ECMO.**

Patient has bleeding requiring mediastinal exploration while on ECMO.

> **This situation would be coded as ECMO.**

Patient returns to the OR for an unbalanced AVC repair while on ECMO. The consent and the operative report note that the case was for the repair. Case completed and the patient returns to the CVICU on ECMO.

> **This situation is coded as a CPB Cardiovascular case since the case is a cardiovascular procedure even if the patient returns to the CVICU on ECMO. This would also be the index procedure for the patient.**

Patient arrives in the CVICU. The patient needs a PAB. The consent and the operative report identify that the patient is going to have a PAB. During the procedure the patient is identified to need ECMO as well.

> **This is coded as a CV case with or without CPB depending on the operative report, if the PAB was done while on ECMO (cannulation occurred before the PAB)** the op type is CPB.

Patient arrives in CVICU and needs cannulation for ECMO. The consent and discussion with the family is for ECMO. The patient is cannulated for ECMO.

> **This is coded as ECMO.**

Patient is decannulated from ECMO. Chest is closed.
This is coded as ECMO.

FAQs:

August 2016: We have a non-congenital heart kid who was put on ECMO by general surgery. Days later our congenital surgeons re-cannulated him, repaired a nick in his atrium and drained a pericardial effusion, both due to his initial cannulation. Since he has a normal heart and was already on ECMO, would this be considered Op Type ECMO, or CPB? **This is Op Type ECMO.**

March 2017: ECMO only was done via a small transverse incision superior and to the right clavicle. When it was removed, the removal was done at bedside. Is this type of ECMO procedure supposed to be captured, since it sounds like it was a percutaneous insertion and not an actual surgical procedure? **If the cardiac surgeons performed the procedure and the patient was put on ECMO, include as an ECMO procedure in the database.**

August 2016: Patient is admitted for wound drainage/debridement, sternum is left open planned. Patient then undergoes a 'delayed sternal closure'. What op type would you code for the 'delayed sternal closure'? **This is Op Type Thoracic. In this case the procedure was not related to the heart.**

August 2016: A patient had a PDA closure and a tracheal procedure done. Cardiopulmonary bypass was initiated utilizing an ECMO circuit for the procedure. ECMO was discontinued at the end of the procedure. Should the optype for this procedure be CPB cardio? **If ECMO was initiated exclusively for the procedure, code either Op Type ECMO or Op Type CPB, non-cardiovascular. Only code this as a cardiovascular procedure if the main reason to undertake the procedure was to close the ductus.**

October 2016: A patient is admitted to the hospital and requires emergent ECMO cannulation. The following day the patient is taken to the OR for BT shunt placement done on ECMO.

1.) What should the op type be coded as? **If the BT Shunt is done on ECMO, we should code as Op Type = CPB because the ECMO circuit is functioning as a CPB circuit in this setting.**
2.) If the patient was transitioned from ECMO to bypass in the OR and then transitioned back to ECMO at the end of the case would you code op type as CPB with preop risk factor of ECMO and postop complication of ECMO? **Yes. Op Type = CPB, preop risk factor of ECMO and postop complication of ECMO**
3.) If the patient was de-cannulated from ECMO prior to the placement of the shunt and the shunt was done with no support would you code Op Type as No CPB? **Yes. Op Type = No CPB Cardiovascular**

How should CPB information be entered for cases done on ECMO? **Use the surgery start and end times as minutes on pump.**

March 2017: If a patient is on ECMO and a mediastinal exploration or other mediastinal procedure is performed, does this count as an ECMO procedure or a nonCPB procedure? When this was asked as a question on the conference call, approximately half of the centers were entering these cases as ECMO and the other half as non-CPB. **If major structural repairs were completed while on ECMO, the operation type is CPB. Otherwise, minor procedures done while on ECMO would remain operation type ECMO (e.g.; mediastinal explorations).**

April 2017: I have a question regarding assignment of the Operation Type for a patient. The patient had DDD pacemaker implanted and VAD. You normally do not see these two procedures together, so I am wondering should I go with “no CPB cardiovascular” for the pacemaker or “VAD operation with CPB” or alternate option may also be “CPB”, as I wanted to show that the patient was on CPB? **Was CPB used to put the VAD in, then Operation type VAD with CPB; if CPB not used the operation type is VAD without CPB**.

April 2017: A patient was transferred in on ECMO for a VAD implant as a bridge to transplant. The patient had a total of three surgeries with us. First surgery was Berlin Heart implant/ecmo decannulation. Second surgery was

delayed sternal closure. Third surgery was mediastinal exploration for bleeding. Several days later, patient suffered a subdural bleed, parents withdrew support and the patient died. What should be the operation types for each of these procedures? Which one is the index? The VAD cases are difficult. What if this patient didn't expire and had a successful heart transplant as the 4th surgery and was discharged to home. Which operation would be the index procedure?

1. **VAD with or without CPB depending on what was done**
2. **VAD without CPB**
3. **VAD without CPB**

As VAD cases are not included in analysis, there really is not an index operation.
If the patient hadn't expired, the first three surgeries would remain VAD cases. However, the 4th surgery for heart transplant would be Op Type: CPB Cardiovascular, and become the patient's index operation.
July 2017: Patient's procedure was resection of left radiocephalic AV fistula and repair of left radial artery with patch. I am not sure what operation type would be best. **Other procedure or Non-cardiac, Non-thoracic procedure on a cardiac patient – whichever fits best.**
September 2017: Patient (CG 3/8) had LVAD implantation, mitral and tricuspid valvuloplasty, and conduit replacement. Is this OpType VAD w/ CPB, or CPB cardiovascular? **CPB Cardiovascular**
October 2017: We have a patient admitted with diagnosis of Ebstein's anomaly in cardiogenic shock and cannulated to ECMO. Subsequently taken to the OR for a Mee shunt and ECMO decannulation. Three weeks later taken to the OR for Cone procedure. What should the operation type be for the Mee shunt? If it is anything but ECMO, the Cone procedure will not be the index case for this admission. If this is acceptable with everyone, then so be it. **It is a CPB case and the Mee Shunt is the index case.**
January 2018: Patient with congenital aortic stenosis that went to cardiac cath lab for balloon valvuloplasty of the aortic valve. Patient had a sudden cardiac arrest post cath requiring ECMO. Was placed on ECMO by our cardiac surgeon and entered into STS with op type ECMO. Patient later returned to cath lab and while in cath lab a hematoma and active bleeding site were noted on left ventricle. This was repaired by surgeon in cath lab while on ECMO but required opening of the sternum to repair injury. I coded this operation type as ECMO as well. Is this the correct operation type for this procedure? Also the patient was later de-cannulated and then the sternum was closed. How do I code the sternal closure as none of these procedures were related to a primary cardiac surgical repair? If I code the chest closure as NoCBPCV will that become my primary procedure for this admission? **If the left ventricle bleeding was caused by the interventional cath procedure, the subsequent repair would be a CPB case. If the left ventricle bleeding was caused during the ECMO cannulation, include the repair as ECMO and then the sternal closure can also be coded as ECMO.**
February 2018: If a patient is on ECMO and has a chest washout, should this be optype ecmo, or cpd cardio, or something else? **ECMO**
February 2018: A patient arrived to our PICU in cardiogenic shock and was cannulated to VA ECMO via the carotid artery and jugular vein. The patient then went to cath lab for an atrial septostomy by the cardiologist which was unsuccessful and resulted in a perforation of the right atrium. The CVT surgeon was called to the cath lab and opened the patient's sternum and inserted an ECMO cannula into the left atrium (for LV decompression) and also repaired the suspected site of atrial perforation with a suture. How would I best capture the procedures done by the surgeon in cath lab? I selected 'ECMO cannulation' and 'cardiac procedure other' for the LA repair. My choices don't seem adequate to reflect the sternotomy with open cannulation and repair of the LA. Is there a better way to capture these procedures? I work with the short list. Also, would this be considered an ECMO procedure or a no CPB cardiovascular case?
Dx: Cath lab complication
Procedure: Cardiac, other
Op type: **ECMO**

February 2018: A pericardial window was done in the CICU at bedside shortly after patient's arrival from transferring hospital (pericardial effusion r/t UVC from referring NICU). Should this be coded "Other" or "Cardiovascular, No CPB"? 3 days later the patient had a shunt procedure and our surgeons were hoping that procedure would be the index procedure. **The pericardial window is the index procedure as a STAT Category 4 procedure, No CPB cardiovascular op type.**

April 2018: What is the OpType for a 'Pacemaker, Removal, Permanent pulse generator'? **No CPB Cardiovascular.**

May 2018: Patient had pulmonary hypertensive crisis post-op and was placed on ECMO support. While on ECMO he had 2 procedures: What are the op types for these? Are they both ECMO procedures?

1. LV vent removed – **Op type ECMO**
2. Peri-atrial hybrid VSD closure along with ECMO de-cannulation (he was not converted to bypass during the procedure). **Op type CPB**

Also include complication of unplanned cardiac reoperation.

July 2018: If an operation was a planned CPB Cardiovascular, but is cancelled after the patient is in the OR but before skin incision, what should the op type be? **Operation type Other.**

July 2018: What operative type should be used for 'Removal, Sternal Wire'? **Code operation type Minor or Thoracic**

August 2018: 8-week old premature infant transferred from OSH with massive hemorrhage from upper GI tract. The patient was taken to the operating room with resuscitation in progress. An exploratory laparotomy and gastrotomy with over-sew of mucosal lesions was performed by Pediatric Surgical Team. Cardiac surgeon called in to perform exploratory left thoracotomy for aortoenteric evaluation. The cardiac surgeon did no detailed dissection and did not find anything in the small window space indicative of an aortocentric fistula. The case was turned back over to the Pediatric Surgical Team for close. The patient was not on CPB. This was a salvage case and the patient died shortly after the operative procedure. What is the Op Type? **Operation type Thoracic**

September 2018: An earlier FAQ from April 2018 says: "What is the OpType for a 'Pacemaker, Removal, Permanent pulse generator'?" and you answered No CPB Cardiovascular. If the generator is epigastric, and is replaced using the same wires as before, shouldn't that be Thoracic since they didn't touch the heart? Does placing or removing leads from the heart make it No CPB, or is anything pacemaker related considered No CPB?
All pacemaker procedures are coded as No CPB Cardiovascular cases.

SeqNo: 1057

Long Name:	Near Infrared Spectroscopy (NIRS) Cerebral Metrics Used
Short Name:	NIRSCerUsed
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether cerebral oximetry was monitored.

SeqNo: 1058

Long Name:	Near Infrared Spectroscopy (NIRS) Cerebral Metrics Used - Preoperatively

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Short Name: NIRSCerPre
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether cerebral oximetry was monitored during the preoperative period.

Parent Long Name: Near Infrared Spectroscopy (NIRS) Cerebral Metrics Used
Parent Short Name: NIRSCerUsed
Parent Value(s): = "Yes"

SeqNo: 1059
Long Name: Near Infrared Spectroscopy (NIRS) Cerebral Metrics Used - Intraoperatively
Short Name: NIRSCerIntra
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether cerebral oximetry was monitored during the intraoperative period.

Parent Long Name: Near Infrared Spectroscopy (NIRS) Cerebral Metrics Used
Parent Short Name: NIRSCerUsed
Parent Value(s): = "Yes"

SeqNo: 1060
Long Name: Near Infrared Spectroscopy (NIRS) Cerebral Metrics Used - Postoperatively
Short Name: NIRSCerPost
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether cerebral oximetry was monitored during the postoperative period.

Parent Long Name: Near Infrared Spectroscopy (NIRS) Cerebral Metrics Used
Parent Short Name: NIRSCerUsed
Parent Value(s): = "Yes"

SeqNo: 1061
Long Name: Near Infrared Spectroscopy (NIRS) Somatic Metrics Used
Short Name: NIRSSomUsed
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether somatic oximetry was monitored.

SeqNo: 1062
Long Name: Near Infrared Spectroscopy (NIRS) Somatic Metrics Used - Preoperatively
Short Name: NIRSSomPre
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether somatic oximetry was monitored during the preoperative period.

Parent Long Name: Near Infrared Spectroscopy (NIRS) Somatic Metrics Used
Parent Short Name: NIRSSomUsed
Parent Value(s): = "Yes"

SeqNo: 1063
Long Name: Near Infrared Spectroscopy (NIRS) Somatic Metrics Used - Intraoperatively
Short Name: NIRSSomIntra
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether somatic oximetry was monitored during the intraoperative period.

Parent Long Name: Near Infrared Spectroscopy (NIRS) Somatic Metrics Used
Parent Short Name: NIRSSomUsed
Parent Value(s): = "Yes"

SeqNo: 1064
Long Name: Near Infrared Spectroscopy (NIRS) Somatic Metrics Used - Postoperatively
Short Name: NIRSSomPost
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether somatic oximetry was monitored during the postoperative period.

Parent Long Name: Near Infrared Spectroscopy (NIRS) Somatic Metrics Used
Parent Short Name: NIRSSomUsed
Parent Value(s): = "Yes"

SeqNo: 1065
Long Name: Time Patient Entered the OR
Short Name: OREntryT
Database Table Name: Operations
Data Source: User

Format: Time - hh:mm (24-hour clock)
Definition: Indicate to the nearest minute (using 24-hour clock) the time the patient entered the OR. If the procedure was performed in a location other than the OR, record the time when the sterile field was set up.

SeqNo: 1066
Long Name: Skin Incision Start Time
Short Name: SIStartT
Database Table Name: Operations
Data Source: User
Format: Time - hh:mm (24-hour clock)
Definition: Indicate to the nearest minute (using 24-hour clock) the time the skin incision was made.

SeqNo: 1067
Long Name: Endotracheal Intubation was Performed
Short Name: Intubate
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an endotracheal intubation was performed.

SeqNo: 1068
Long Name: Intubation Date and Time
Short Name: IntubateDT
Database Table Name: Operations
Data Source: User
Format: Date/Time - mm/dd/yyyy hh:mm
Definition: Indicate the date (mm/dd/yyyy) and time (hh:mm) (24 hour clock) ventilatory support started. Capture the intubation closest to the surgical start time.

If the patient was intubated upon admission and remained intubated until the surgical start time, capture this intubations date and time.

If the patient was admitted intubated (intubated at another institution) and remained continually intubated until the surgical start time, capture the patient's admission date and time.

If the patient was admitted with a tracheostomy in place without ventilatory support, capture the date and time closest to the surgical start time that ventilatory support was initiated.

If the patient was admitted with a tracheostomy in place receiving chronic ventilatory

support, capture the admission date and time.

If the intubation date and time is otherwise unknown, enter the date and time the patient entered the operating room.

Do not alter the previously established date and time that ventilatory support was initiated for scenarios including, but not limited to, interruptions in ventilatory support due to accidental extubation /de-cannulation, elective tube change etc.

Parent Long Name: Endotracheal Intubation was Performed
Parent Short Name: Intubate
Parent Value(s): = "Yes"

SeqNo: 1069
Long Name: Initial Extubation Date and Time
Short Name: ExtubateDT
Database Table Name: Operations
Data Source: User
Format: Date/Time - mm/dd/yyyy hh:mm
Definition: Indicate the date (mm/dd/yyyy) and time (hh:mm) (24 hour clock) ventilatory support initially ceased after surgery. Capture the extubation closest to the surgical stop time.

If the patient has a tracheostomy and is separated from the mechanical ventilator postoperatively within the hospital admission, capture the date and time of separation from the mechanical ventilator closest to the surgical stop time.

If the patient expires while intubated or /cannulated and on the ventilator, capture the date and time of expiration.

If patient discharged on chronic ventilatory support, capture the date and time of discharge.

Parent Long Name: Endotracheal Intubation was Performed
Parent Short Name: Intubate
Parent Value(s): = "Yes"

February 2018: We have a patient that was discharged to another facility, intubated & on ventilator. How do we document extubation time for the database? **Date and time of hospital discharge**

SeqNo: 1070
Long Name: Extubated In The Operating Room
Short Name: ExtubInOR
Database Table Name: Operations

Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the endotracheal tube was removed in the OR or at the end of the procedure if it was performed in another location.

Parent Long Name: Endotracheal Intubation was Performed
Parent Short Name: Intubate
Parent Value(s): = "Yes"

February 2017: If the patient is extubated in the OR but is reintubated before leaving the OR, how should this question be answered? **'Yes' to #1070, extubated in OR. You would answer 'Yes' to #1017, reintubated after initial post-operative extubation also.**
July 2018: A scenario came up and I need to know how to answer a certain field for "Extubation in the OR" SEQ#1070. If the patient was moved from the OR intubated, but still under Anesthesia care, in order to set up for another procedure, and then was extubated immediately on arrival to ICU can we still answer "Yes" for the field "Extubation in the OR" under Ventilator Information**?** **No, if extubated outside of the OR it is not extubation in the OR.**

SeqNo: 1071
Long Name: Re-Intubated After Initial Postoperative Extubation
Short Name: ReIntubate
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was re-intubated after the initial postoperative extubation.

Parent Long Name: Endotracheal Intubation was Performed
Parent Short Name: Intubate
Parent Value(s): = "Yes"

August 2016: If a patient is intubated for the congenital cardiac surgery and extubated following the surgery, then intubated again later for another procedure and extubated in the OR following the other procedure, is this counted as a reintubation? **Yes, this is counted as a re-intubation but it is not a complication. The patient was re-intubated for a procedure and not as a result of respiratory failure.**

April 2018: A patient was on the ventilator prior to surgery and was extubated 2 days after surgery. Several weeks later the patient was trached due to her dependency on NIPPV. She was placed on the ventilator after the tracheostomy and remained on the ventilator until her discharge. How would I answer sequence 1071, was patient re-intubated after initial postoperative extubation? Even though she wasn't technically re-intubated, she did require creation of an airway and placement on mechanical ventilatory support. If I answer yes to Seq. #1071, would I then use her discharge date & time as her final extubation date & time? **Yes, code the patient was reintubated following initial post-operative extubation and use the discharge date and time as the final extubation date and time. Also include the tracheostomy as an unplanned non-cardiac reoperation and the tracheostomy. This will also be a major post-operative complication.**

SeqNo: 1072

Long Name:	Final Extubation Date and Time
Short Name:	FinExtubDT
Database Table Name:	Operations
Data Source:	User
Format:	Date/Time - mm/dd/yyyy hh:mm
Definition:	Indicate the date (mm/dd/yyyy) and time (hh:mm) (24 hour clock) ventilatory support last ceased prior to discharge after surgery. Capture the extubation time closest to discharge. If the patient has a tracheostomy and is separated from the mechanical ventilator more than once postoperatively within the hospital admission, capture the date and time of separation from the mechanical ventilator closest to the hospital discharge. If the patient expires while intubated or cannulated and on the ventilator capture the date and time of expiration. If the patient was discharged on chronic ventilatory support capture the date and time of discharge.
Parent Long Name:	Re-Intubated After Initial Postoperative Extubation
Parent Short Name:	ReIntubate
Parent Value(s):	= "Yes"

May 2017: How to document child who is trached and has no final extubation date. **The extubation date will be the date and time the patients discharged from the facility.**

SeqNo: 1073

Long Name:	Time of Skin Closure
Short Name:	SIStopT
Database Table Name:	Operations
Data Source:	User
Format:	Time - hh:mm (24-hour clock)
Definition:	Indicate to the nearest minute (using 24-hour clock) the time the skin incision was closed. If patient leaves the operating room with an open incision, collect the time dressings were applied to the incision.

SeqNo: 1074

Long Name:	Time Patient Exited the OR
Short Name:	ORExitT
Database Table Name:	Operations

Data Source: User
Format: Time - hh:mm (24-hour clock)
Definition: Indicate to the nearest minute (using 24-hour clock) the time the patient exits the operating room. If the procedure was performed in a location other than the OR, record the time when the sterile field was taken down.

SeqNo: 1075
Long Name: Procedure Extended Through Midnight
Short Name: MultiDay
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the procedure continued through midnight from one day to the next.

March 2017: Is Multiday determined by OR entry time or by skin incision start time? For example, the patient enters the OR at 23:19 on 10/24. Skin incision is at 00:51 on 10/25. SI stop is at 8:06 on 10/25, and OR exit is at 8:17 on 10/25. Is this multiday? **Yes, use OR entry and exit as the parameters for determination of multiday procedures.**

SeqNo: 1076
Long Name: Surgeon
Short Name: Surgeon
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by user) Data Length: 100
Definition: Indicate the name of the primary surgeon performing this surgical procedure. The name, NPI and signature of all surgeons contributing data to the database must be on file with the STS for data files to be accepted.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular", "CPB Non-Cardiovascular", "ECMO", "Thoracic", "VAD Operation Done With CPB", "VAD Operation Done Without CPB." or "Other"

SeqNo: 1078
Long Name: Surgeon National Provider Identifier
Short Name: SurgNPI
Database Table Name: Operations
Data Source: Lookup
Format: Text
Definition: Indicate the individual-level National Provider Identifier (NPI) of the surgeon performing the procedure.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular", "CPB Non-Cardiovascular", "ECMO", "Thoracic", "VAD Operation Done With CPB", "VAD Operation Done Without CPB." or "Other"

SeqNo: 1079
Long Name: Taxpayer Identification Number
Short Name: TIN
Database Table Name: Operations
Data Source: User
Format: Text
Definition: Indicate the group-level Taxpayer Identification Number for the Taxpayer holder of record for the Surgeon's National Provider Identifier that performed the procedure.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular", "CPB Non-Cardiovascular", "ECMO", "Thoracic", "VAD Operation Done With CPB", "VAD Operation Done Without CPB." or "Other"

SeqNo: 1080
Long Name: Reoperation Within This Admission
Short Name: ReOpInAdm
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether this is a second, or third (or more) operation within the same hospital admission.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular", "CPB Non-Cardiovascular", "ECMO", "Thoracic", "VAD Operation Done With CPB", "VAD Operation Done Without CPB." or "Other"

August 2017: My surgeon performed a VSD/PFO closure. The patient was moved from the OR table but not out of the operating room when they noticed bleeding, placed him back on the table, opened the sternum and cauterized a bleeder. There is only one Op Note and start and stop times were not noted separately even though the skin was closed and reopened. Is this a reoperation for bleeding or would I list it as mediastinal exploration along with the VSD & PFO procedures? **One operative case, include mediastinal exploration and code the complication bleeding, requiring reoperation.**

SeqNo: 1090

Long Name: Number of Prior Cardiothoracic Operations
Short Name: PrvCtOpN
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate, prior to this admission's surgical procedure, how many cardiothoracic (heart or great vessels) surgical procedures were performed with or without cardiopulmonary bypass (CPB). Also include lung procedures utilizing CPB or tracheal procedures utilizing CPB. See Operation Type for further clarification.

Low Value: 0 High Value: 200

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular", "CPB Non-Cardiovascular", "ECMO", "Thoracic", "VAD Operation Done With CPB", "VAD Operation Done Without CPB." or "Other"

March 2017: Are diagnostic and/ or therapeutic Heart Caths considered prior cardiac caths? Same question for ECMO? **Include only cardiac cases (CPB or No CPB Cardiovascular cases only).**
August 2017: Is an Aortapexy considered a cardiothoracic surgery because it involves one of the great vessels? **Yes.**
December 2017: What qualifies as a prior cardiothoracic operation? Does this include: Chest closures/washouts, ECMO cannulation/decannulation? Are the number of prior operations part of the risk model or is it just yes or no? **Include operation types CPB and No CPB only. Do not include ECMO cannulation or decannulation. The current risk model looks at previous cardiac surgery yes or no, not a cumulative number.**

SeqNo: 1100
Long Name: Number of Prior CPB Cardiothoracic Operations
Short Name: PrvOCtOpN
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate how many cardiothoracic surgical procedures were performed on this patient, prior to this surgical procedure, utilizing CPB (do not include CPB support or ECMO support).

Low Value: 0 High Value: 50

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular", "CPB Non-Cardiovascular", "ECMO", "Thoracic", "VAD Operation Done With CPB", "VAD Operation Done Without CPB" or "Other"

SeqNo: 1130
Long Name: Cross Clamp Time - No CPB
Short Name: XClampTmNC
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the total number of minutes the aorta is completely cross-clamped during this surgical procedure. Enter zero if no cross-clamp was used.

Low Value: 0 High Value: 600

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "No CPB Cardiovascular"

SeqNo: 1140
Long Name: CPB Blood Prime
Short Name: CPBPrimed
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the CPB circuit was primed with blood other than the patient's own blood.
Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1150
Long Name: Cardiopulmonary Bypass Time
Short Name: CPBTm
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the total number of minutes that systemic return is diverted into the cardiopulmonary bypass (CPB) circuit and returned to the systemic system. This time period (Cardiopulmonary Bypass Time) includes all periods of cerebral perfusion and sucker bypass. This time period (Cardiopulmonary Bypass Time) excludes any circulatory arrest and modified ultrafiltration periods. If more than one period of CPB is required during the surgical procedure, the sum of all the CPB periods will equal the total number of CPB minutes. Enter zero if cardiopulmonary bypass technique was not used.

Low Value: 0 High Value: 999

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1160
Long Name: Cross Clamp Time - CPB
Short Name: XClampTm
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the total number of minutes that the coronary circulation is mechanically isolated from systemic circulation, either by an aortic cross clamp or systemic circulatory arrest. This time period (Cross Clamp Time) includes all intervals of intermittent or continuous cardioplegia administration. If more than one cross clamp period is required during this surgical procedure, the sum of the cross clamp periods is equal to the total number of cross clamp minutes. Enter zero if the coronary circulation was never mechanically isolated from systemic circulation, either by an aortic cross clamp or systemic circulatory arrest. For the following two operations: (1) "Transplant, Heart", and (2) "Transplant, Heart and lung", the field "Cross Clamp Time" will be defined as the cross clamp time of the donor heart. Therefore, these two operations represent the only operations where the field "Cross Clamp Time" can be greater than the field "Cardiopulmonary Bypass Time".

Low Value: 0 High Value: 600

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1170
Long Name: Circulatory Arrest Time
Short Name: DHCATm
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the total number of minutes of complete cessation of blood flow to the patient. This time period (Circulatory Arrest Time) excludes any periods of cerebral perfusion. If more than one period of circulatory arrest is required during this surgical procedure, the sum of these periods is equal to the total duration of circulatory arrest. Enter zero if circulatory arrest technique was not used.

Low Value: 0 High Value: 200

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1180
Long Name: Patient Temperature Monitoring Site - Bladder
Short Name: TempSiteBla
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the bladder monitoring site was utilized during this procedure to determine lowest and highest patient temperature during cardiopulmonary bypass.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1190
Long Name: Lowest Core Temperature - Bladder
Short Name: LowCTmpBla
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the lowest temperature (Celsius) achieved during cardiopulmonary bypass as recorded using the bladder monitoring site.

Low Value: 1.0 High Value: 37.0

Parent Long Name: Patient Temperature Monitoring Site - Bladder
Parent Short Name: TempSiteBla
Parent Value(s): = "Yes"

SeqNo: 1200
Long Name: Patient Temperature Monitoring Site - Esophageal
Short Name: TempSiteEso
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the esophageal monitoring site was utilized during this procedure to determine lowest and highest patient temperature during cardiopulmonary bypass.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1210
Long Name: Lowest Core Temperature - Esophageal
Short Name: LowCTmpEso
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the lowest temperature (Celsius) achieved during cardiopulmonary bypass as recorded using the esophageal monitoring site.

Low Value: 1.0 High Value: 37.0

Parent Long Name: Patient Temperature Monitoring Site - Esophageal
Parent Short Name: TempSiteEso
Parent Value(s): = "Yes"

SeqNo: 1220
Long Name: Patient Temperature Monitoring Site - Nasopharyngeal
Short Name: TempSiteNas
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the nasopharyngeal monitoring site was utilized during this procedure to determine lowest and highest patient temperature during cardiopulmonary bypass.
Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1230
Long Name: Lowest Core Temperature - Nasopharyngeal
Short Name: LowCTmpNas
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the lowest temperature (Celsius) achieved during cardiopulmonary bypass as recorded using the nasopharyngeal monitoring site.

Low Value: 1.0 High Value: 37.0

Parent Long Name: Patient Temperature Monitoring Site - Nasopharyngeal

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Parent Short Name: TempSiteNas
Parent Value(s): = "Yes"

SeqNo: 1240
Long Name: Patient Temperature Monitoring Site - Rectal
Short Name: TempSiteRec
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the rectal monitoring site was utilized during this procedure to determine lowest and highest patient temperature during cardiopulmonary bypass.
Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1250
Long Name: Lowest Core Temperature - Rectal
Short Name: LowCTmpRec
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the lowest temperature (Celsius) achieved during cardiopulmonary bypass as recorded using the rectal monitoring site.

Low Value: 1.0 High Value: 37.0

Parent Long Name: Patient Temperature Monitoring Site - Rectal
Parent Short Name: TempSiteRec
Parent Value(s): = "Yes"

SeqNo: 1260
Long Name: Patient Temperature Monitoring Site - Tympanic
Short Name: TempSiteTym
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the tympanic monitoring site was utilized during this procedure to determine lowest and highest patient temperature during cardiopulmonary bypass.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1270
Long Name: Lowest Core Temperature - Tympanic
Short Name: LowCTmpTym
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the lowest temperature (Celsius) achieved during cardiopulmonary bypass as recorded using the tympanic monitoring site.

Low Value: 1.0 High Value: 37.0

Parent Long Name: Patient Temperature Monitoring Site - Tympanic
Parent Short Name: TempSiteTym
Parent Value(s): = "Yes"

SeqNo: 1280
Long Name: Patient Temperature Monitoring Site - Other
Short Name: TempSiteOth
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether any other monitoring site was utilized during this procedure to determine lowest and highest patient temperature during cardiopulmonary bypass.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1290
Long Name: Lowest Core Temperature - Other
Short Name: LowCTmpOth
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the lowest temperature (Celsius) achieved during cardiopulmonary bypass as recorded using the other monitoring site.

Low Value: 1.0 High Value: 37.0

Parent Long Name: Patient Temperature Monitoring Site - Other
Parent Short Name: TempSiteOth
Parent Value(s): = "Yes"

SeqNo: 1300
Long Name: Cooling Time
Short Name: CoolTime
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of minutes of active cooling on cardiopulmonary bypass.

Low Value: 0 High Value: 200

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

April: Is this question looking for the number of minutes it takes to cool the patient to the temperature, or should it include the minutes that they are held at the lowest temperature? **From the specs, cooling time is the number of minutes of active cooling on cardiopulmonary bypass which would include the time it takes to cool the patient as well as the time the patient is cooled.**
June 2017: After listening to the recording of the April Eddie call, I was confused while listening to the discussion of cooling time and how to determine the correct time of cooling and how "active" cooling time plays a part.From the explanation on the call and the way it was added in the data definitions, the cooling time should include the active cooling time in addition to the time it takes to maintain the desired low temp. This would clearly result in a much higher time than what our facility has been entering. We currently do not include the maintenance of the desired temp, but only the time it took to achieve the temp. If the maintenance time should be included, then the total time for cooling would be the majority of the bypass time. Please clarify the correct way and maybe the intent of this field for a better understanding. **From the specs, and the definition above, cooling time is the number of minutes of active cooling on cardiopulmonary bypass which would include the time it takes to cool the patient as well as the time the patient is cooled.**

SeqNo: 1310
Long Name: Rewarming Time
Short Name: RewarmTime
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of minutes from the initiation of rewarming until the target rewarming temperature is achieved.

Low Value: 0 High Value: 500

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

July 2017: Question from our perfusionist: Trying to reconcile our CPB cooling and rewarming times. The help file mentions “target” temperature. The question I have is which temperature are we supposed to use for the

"target" – Bladder, Naso, Esophageal, Rectal, Venous Blood? **Location of monitoring the temperature does not matter. The target temperature is referring to the temp you are trying to achieve or maintain.**

SeqNo: 1320
Long Name: Cerebral Perfusion Utilized
Short Name: CPerfUtil
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether cerebral perfusion was performed.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1330
Long Name: Cerebral Perfusion Time
Short Name: CPerfTime
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the total number of minutes cerebral perfusion was performed. This would include antegrade or retrograde cerebral perfusion strategies.

Low Value: 1 High Value: 999

Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1340
Long Name: Cerebral Perfusion Cannulation Site - Innominate Artery
Short Name: CPerfCanInn
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the innominate artery cannulation site was utilized for cerebral perfusion.

Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1350
Long Name: Cerebral Perfusion Cannulation Site - Right Subclavian
Short Name: CPerfCanRSub
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the right subclavian cannulation site was utilized for cerebral perfusion.

Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1360
Long Name: Cerebral Perfusion Cannulation Site - Right Axillary Artery
Short Name: CPerfCanRAx
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the right axillary artery cannulation site was utilized for cerebral perfusion.
Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1370
Long Name: Cerebral Perfusion Cannulation Site - Right Carotid Artery
Short Name: CPerfCanRCar
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the right carotid artery cannulation site was utilized for cerebral perfusion.
Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1380
Long Name: Cerebral Perfusion Cannulation Site - Left Carotid Artery
Short Name: CPerfCanLCar
Database Table Name: Operations
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate whether the left carotid artery cannulation site was utilized for cerebral perfusion.

Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1390
Long Name: Cerebral Perfusion Cannulation Site - Superior Vena Cava
Short Name: CPerfCanSVC
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the superior vena cava cannulation site was utilized for cerebral perfusion.
Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1400
Long Name: Cerebral Perfusion Periods
Short Name: CPerfPer
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of periods of cerebral perfusion. For example, if the cerebral perfusion time is a total of 20 minutes and the patient received 4 separate 5 minute periods of cerebral perfusion, the cerebral perfusion periods would be 4.

Low Value: 1 High Value: 20

Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1410
Long Name: Cerebral Perfusion Flow Rate
Short Name: CPerfFlow
Database Table Name: Operations
Data Source: User
Format: Integer

Definition: Indicate the cerebral perfusion flow rate in milliliters per kilogram (mL/kg) per minute.

Low Value: 1 High Value: 999

Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1420
Long Name: Cerebral Perfusion Temperature
Short Name: CPerfTemp
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the perfusate temperature (Celsius) maintained during cerebral perfusion.

Low Value: 1 High Value: 37

Parent Long Name: Cerebral Perfusion Utilized
Parent Short Name: CPerfUtil
Parent Value(s): = "Yes"

SeqNo: 1430
Long Name: Arterial Blood Gas Management During Cooling
Short Name: ABldGasMgt
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the arterial blood gas management strategy utilized during the cooling phase of cardiopulmonary bypass prior to initiation of circulatory arrest or cerebral perfusion.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1440
Long Name: Hematocrit Prior to Circulatory Arrest or Cerebral Perfusion
Short Name: HCTPriCircA
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the last hematocrit value prior to initiation of circulatory arrest or cerebral

perfusion.

Low Value: 5.0 High Value: 70.0

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1450
Long Name: Cardioplegia Delivery
Short Name: CplegiaDeliv
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the delivery method of cardioplegia if used.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

12/2015: If a patient is given more than one kind of cardioplegia solution (e.g. Buckberg and del Nido) in the same operative event, which do I capture? In one case, one was arresting, the rest were maintenance; but in another, they were both arresting. **Indicate the first one.**

SeqNo: 1460
Long Name: Cardioplegia Type
Short Name: CplegiaType
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of cardioplegia used.

Parent Long Name: Cardioplegia Delivery
Parent Short Name: CplegiaDeliv
Parent Value(s): = "Antegrade", "Retrograde" or "Both"

SeqNo: 1470
Long Name: Cardioplegia Solution
Short Name: CplegiaSolution
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the cardioplegia solution used during this procedure.

Parent Long Name: Cardioplegia Delivery
Parent Short Name: CplegiaDeliv
Parent Value(s): = "Antegrade", "Retrograde" or "Both"

SeqNo: 1490
Long Name: Cardioplegia Number Of Doses
Short Name: CplegiaDose
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of doses of cardioplegia administered

Low Value: 1 High Value: 50

Parent Long Name: Cardioplegia Delivery
Parent Short Name: CplegiaDeliv
Parent Value(s): = "Antegrade", "Retrograde" or "Both"

SeqNo: 1640
Long Name: Hematocrit - First after initiating CPB
Short Name: HCTFirst
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the first hematocrit measured after initiating CPB.

Low Value: 5.0 High Value: 70.0

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

July 2016: Which HCT values (first, last, and first off) do you record if a patient has multiple bypass runs? **If multiple bypass runs occur in the course of a single OR procedure, list the first Hct value during the first bypass run. This may not be the most meaningful value in the world, but coding will be consistent with all other cases**.
January 2017: As a rule, my organization and surgical team do not chart HCT, but rather HGB during their cases. Thus, I have no charted HCT for the preoperative or operative periods. Can I do a calculated HCT, or bypass this entire field. **Leave it blank.** If I bypass the whole series, will our data be rejected? **No**

SeqNo: 1650
Long Name: Hematocrit - Last Measured During CPB
Short Name: HCTLast
Database Table Name: Operations

Data Source: User
Format: Real
Definition: Indicate the last hematocrit measured during CPB.

Low Value: 5.0 High Value: 70.0

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

SeqNo: 1660
Long Name: Hematocrit - Post-CPB and Post-Protamine
Short Name: HCTPost
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the hematocrit measured post-CPB following protamine administration.

Low Value: 5.0 High Value: 70.0

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

April 2018: Which dose of Protamine Post Bypass do we use if the patient receives multiple doses due to coagulopathy? **The hematocrit should be recorded following the last dose of Protamine.**

SeqNo: 1670
Long Name: Ultrafiltration Performed After CPB
Short Name: Ultrafiltration
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether ultrafiltration was performed after CPB.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "CPB Non-Cardiovascular" or "VAD Operation Done With CPB"

November 2016: Is this sequence meant to capture only ultrafiltration done after CPB? Our understanding based on information from the perfusionist is that CUF is performed on CPB while MUF is performed post CPB.If this is the case, CUF wouldn't ever be selected, so should it be a choice? Or is the intent to capture all ultrafiltration done during the operation? **It is appropriate to be confused about this field: The wording "Indicate whether ultrafiltration was performed after CPB," is confusing.**

As a temporary work-around, until such language can be changed in the specifications, I would suggest interpreting this field as pertaining to "ultrafiltration after the initiation of cardiopulmonary bypass," From a practical standpoint, this then includes the period of cpb support and the period immediately following cessation of cpb support. Conventional ultrafiltration, if used, is a process that takes place during the period of cpb support. Modified ultrafiltration (MUF), if used, is a process that is carried out after cessation of cardiopulmonary bypass support, before removal of arterial and venous cannulae from the patient.
I think an additional question was raised earlier, and in terms of coding this field in the CHSD, processes to promote hemoconcentration other than MUF, carried out after cessation of cardiopulmonary bypass support, should not be coded as either conventional ultrafiltration (CUF) or modified ultrafiltration (MUF). While this may encompass use of a "cell-saver" or other centrifugation device, it may also involve the hemoconcentrating filter that is suitable for CUF or MUF. So, for example, use of the same hemofiltration filter for the purpose of concentrating the volume of blood-containing fluid left in the bypass circuit and the end of the case should not be coded as ultrafiltration, unless it involves removal of fluid directly from, and reinfusion of blood directly to the patient via the cpb circuit and cannulae, as is done in both forms of ultrafiltration.

SeqNo: 1770
Long Name: Pulmonary Vascular Resistance Measured
Short Name: PVRMeas
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the Pulmonary Vascular Resistance (PVR) in Woods units was measured by cardiac catheterization prior to this operation.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular", "CPB Non-Cardiovascular", "ECMO", "Thoracic", "VAD Operation Done With CPB", "VAD Operation Done Without CPB" or "Other"

April 2016: This item says "prior to this operation". Does this mean during this hospitalization? **Yes.**
What is the time frame to report a PVR prior to surgery? **6 Months.**

SeqNo: 1780
Long Name: Pulmonary Vascular Resistance
Short Name: PVR
Database Table Name: Operations
Data Source: User
Format: Real
Definition: If the patient's weight is greater than or equal to 40 kilograms, indicate the pulmonary vascular resistance (in Wood units) as measured by cardiac catheterization.

Low Value: 0.0 High Value: 100.0

Parent Long Name:
Parent Short Name: PVRMeas|WeightKg
Parent Value(s): = "Yes"|>=40

SeqNo: 1790
Long Name: Pulmonary Vascular Resistance Index
Short Name: PVRI
Database Table Name: Operations
Data Source: User
Format: Real
Definition: If the patient's weight is less than 40 kilograms, indicate the Pulmonary Vascular Resistance Index (in Wood units x m2) as measured by cardiac catheterization.

Low Value: 0.0 High Value: 100.0

Parent Long Name:
Parent Short Name: PVRMeas|WeightKg
Parent Value(s): = "Yes"|<40

SeqNo: 2461
Long Name: Autologous Transfusion
Short Name: AutologousTrans
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was transfused with any autologous blood products that had been collected prior to surgery (e.g. self-donated).

March 2018: Is the answer to this field Yes only if the patient donated blood for themselves prior to the surgery? Would the answer be No if cell saver blood was reinfused? **Correct. Autologous refers to blood donated ahead of time by the patient in preparation for surgery - it may be whole blood or split into components. This is different than Cell Saver / Salvage blood, which is collected intraoperatively, processed and reinfused. Cell Saver blood is RBC only, all other components are washed off in the processing.**

SeqNo: 2462
Long Name: Cell Saver/Salvage Blood Returned to Patient
Short Name: CellSavSal
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether cell saver/salvage blood was infused during this procedure.

SeqNo: 2743
Long Name: Transfusion of Non-Autologous Blood Products During or After Procedure
Short Name: TransfusBldProdAny
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received non-autologous (self-donated) blood products during or after this procedure.

July 2016: For patients that have 2 major operations during the same admission, on the second operation, are we supposed to answer this question "No" even though product was used for pump prime and intraoperatively, because all products are supposed to be tied to the index operation?
DCRI has requested that all blood product usage be tied back to the index operation for a given admission (this will be a point of discussion at the upcoming AQO). So, for example, if a patient has Norwood operation and remains in the hospital for several months and then has a Glenn, all the blood products would be listed in the original Norwood as transfusion after 24 hours. I know this doesn't make a lot of clinical sense, which is why we are discussing this (times).and intubation/reintubation.
December 2016: Where should pooled platelets be entered? **Document it in Seq. 2763.**

SeqNo: 2744
Long Name: Transfusion of Blood Products During Procedure
Short Name: Transfusion
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received a transfusion during this procedure.

Parent Long Name: Transfusion of Non-Autologous Blood Products During or After
Parent Short Name: TransfusBldProdAny
Parent Value(s): = "Yes"

SeqNo: 2751
Long Name: Blood Products Transfused - Packed Red Blood Cells (PRBC) - Units Transfused During Procedure
Short Name: BldProdPRBCDur
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Packed Red Blood Cells (PRBC) the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and

finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products During Procedure
Parent Short Name: Transfusion
Parent Value(s): = "Yes"

SeqNo: 2754
Long Name: Blood Products Transfused - Fresh Frozen Plasma (FFP) - Units Transfused During Procedure
Short Name: BldProdFFPDur
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Fresh Frozen Plasma (FFP) the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products During Procedure
Parent Short Name: Transfusion
Parent Value(s): = "Yes"

SeqNo: 2757
Long Name: Blood Products Transfused - Fresh Plasma - Units Transfused During Procedure
Short Name: BldProdFreshPDur
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Fresh Plasma (<72 Hours Post-collection, never frozen) the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor

count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products During Procedure
Parent Short Name: Transfusion
Parent Value(s): = "Yes"

SeqNo: 2760
Long Name: Blood Products Transfused - Single Donor Platelet Pheresis - Units Transfused During Procedure
Short Name: BldProdSnglPlatDur
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Single Donor Platelet Pheresis (1 pheresis UNIT = approx 6 indiv units) the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products During Procedure
Parent Short Name: Transfusion
Parent Value(s): = "Yes"

July 2016: The definition says "Indicate the number of units of Single Donor Platelet Pheresis (1 pheresis UNIT = approx 6 indiv units) the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation." We use pooled platelet pheresis and not single donor pheresis. We have no way of telling how many donors were used in each unit, so how do I indicate these? **Check with your blood bank; they should be able to give you a better answer than I can. How are your platelet concentrates ordered? By volume? When I last used platelet pooled products (it has been some time) we ordered a specific number of pooled platelets (ie 4 units**

pooled). The pooling is mostly for convenience of administration (rather than having to draw the platelets from 4 separate bags they are combined into one by the blood bank).

SeqNo: 2763

Long Name:	Blood Products Transfused - Individual Platelets - Units Transfused During Procedure
Short Name:	BldProdIndPlatDur
Database Table Name:	Operations
Data Source:	User
Format:	Integer
Definition:	Indicate the number of units of Individual Platelets, including concentrated, the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units. Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name:	Transfusion of Blood Products During Procedure
Parent Short Name:	Transfusion
Parent Value(s):	= "Yes"

SeqNo: 2766

Long Name:	Blood Products Transfused - Cryoprecipitate - Units Transfused During Procedure
Short Name:	BldProdCryoDur
Database Table Name:	Operations
Data Source:	User
Format:	Integer
Definition:	Indicate the number of units of Cryoprecipitate the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units. Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products During Procedure
Parent Short Name: Transfusion
Parent Value(s): = "Yes"

SeqNo: 2769
Long Name: Blood Products Transfused - Fresh Whole Blood - Units Transfused During Procedure
Short Name: BldProdFreshWBDur
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Fresh Whole Blood (< 72 Hours post-collection) the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products During Procedure
Parent Short Name: Transfusion
Parent Value(s): = "Yes"

SeqNo: 2772
Long Name: Blood Products Transfused - Whole Blood - Units Transfused During Procedure
Short Name: BldProdWBDur
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Whole Blood (> 72 hours post-collection) the patient received during the procedure (including CPB PRIME). Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products During Procedure
Parent Short Name: Transfusion
Parent Value(s): = "Yes"

SeqNo: 2779
Long Name: Transfusion of Blood Products Within 24 Hours Post-Procedure
Short Name: TransfusBldProdLT24
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received blood products within 24 hours post-procedure.

Parent Long Name: Transfusion of Non-Autologous Blood Products During or After
Parent Short Name: TransfusBldProdAny
Parent Value(s): = "Yes"

SeqNo: 2780
Long Name: Blood Products Transfused - Packed Red Blood Cells (PRBC) - Units Transfused Within 24 Hours Post-Procedure
Short Name: BldProdPRBCLT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Packed Red Blood Cells (PRBC) the patient received within 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products Within 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdLT24
Parent Value(s): = "Yes"

SeqNo: 2781

Long Name:	Blood Products Transfused - Fresh Frozen Plasma (FFP) - Units Transfused Within 24 Hours Post-Procedure
Short Name:	BldProdFFPLT24
Database Table Name:	Operations
Data Source:	User
Format:	Integer
Definition:	Indicate the number of units of Fresh Frozen Plasma (FFP) the patient received within 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units. Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name:	Transfusion of Blood Products Within 24 Hours Post-Procedure
Parent Short Name:	TransfusBldProdLT24
Parent Value(s):	= "Yes"

SeqNo: 2782

Long Name:	Blood Products Transfused - Fresh Plasma - Units Transfused Within 24 Hours Post-Procedure
Short Name:	BldProdFreshPLT24
Database Table Name:	Operations
Data Source:	User
Format:	Integer
Definition:	Indicate the number of units of Fresh Plasma (<72 Hours Post-collection, never frozen) the patient received within 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units. Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products Within 24 Hours Post-Procedure

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Parent Short Name: TransfusBldProdLT24
Parent Value(s): = "Yes"

SeqNo: 2783
Long Name: Blood Products Transfused - Single Donor Platelet Pheresis - Units Transfused Within 24 Hours Post-Procedure
Short Name: BldProdSnglPlatLT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Single Donor Platelet Pheresis (1 pheresis UNIT = approx 6 indiv units) the patient received within 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.
Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products Within 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdLT24
Parent Value(s): = "Yes"

SeqNo: 2784
Long Name: Blood Products Transfused - Individual Platelets - Units Transfused Within 24 Hours Post-Procedure
Short Name: BldProdIndPlatLT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Individual Platelets, including concentrated, the patient received within 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products Within 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdLT24
Parent Value(s): = "Yes"

SeqNo: 2785
Long Name: Blood Products Transfused - Cryoprecipitate - Units Transfused Within 24 Hours Post-Procedure
Short Name: BldProdCryoLT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Cryoprecipitate the patient received within 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products Within 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdLT24
Parent Value(s): = "Yes"

SeqNo: 2786
Long Name: Blood Products Transfused - Fresh Whole Blood - Units Transfused Within 24 Hours Post-Procedure
Short Name: BldProdFreshWBLT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Fresh Whole Blood (< 72 Hours post-collection) the patient received within 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun

or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products Within 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdLT24
Parent Value(s): = "Yes"

SeqNo: 2787
Long Name: Blood Products Transfused - Whole Blood - Units Transfused Within 24 Hours Post-Procedure
Short Name: BldProdWBLT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Whole Blood (> 72 hours post-collection) the patient received within 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products Within 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdLT24
Parent Value(s): = "Yes"

SeqNo: 2788
Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure
Short Name: TransfusBldProdGT24
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received blood products after 24 hours post-procedure.

Parent Long Name: Transfusion of Non-Autologous Blood Products During or After
Parent Short Name: TransfusBldProdAny
Parent Value(s): = "Yes"

SeqNo: 2789
Long Name: Blood Products Transfused - Packed Red Blood Cells (PRBC) - Units Transfused After 24 Hours Post-Procedure
Short Name: BldProdPRBCGT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Packed Red Blood Cells (PRBC) the patient received after 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100
Parent Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdGT24
Parent Value(s): = "Yes"

SeqNo: 2790
Long Name: Blood Products Transfused - Fresh Frozen Plasma (FFP) - Units Transfused After 24 Hours Post-Procedure
Short Name: BldProdFFPGT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Fresh Frozen Plasma (FFP) the patient received after 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.
Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure

Parent Short Name: TransfusBldProdGT24
Parent Value(s): = "Yes"

SeqNo: 2791
Long Name: Blood Products Transfused - Fresh Plasma - Units Transfused After 24 Hours Post-Procedure
Short Name: BldProdFreshPGT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Fresh Plasma (<72 Hours Post-collection, never frozen) the patient received after 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdGT24
Parent Value(s): = "Yes"

SeqNo: 2792
Long Name: Blood Products Transfused - Single Donor Platelet Pheresis - Units Transfused After 24 Hours Post-Procedure
Short Name: BldProdSnglPlatGT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Single Donor Platelet Pheresis (1 pheresis UNIT = approx 6 indiv units) the patient received after 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdGT24
Parent Value(s): = "Yes"

SeqNo: 2793
Long Name: Blood Products Transfused - Individual Platelets - Units Transfused After 24 Hours Post-Procedure
Short Name: BldProdIndPlatGT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Individual Platelets, including concentrated, the patient received after 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdGT24
Parent Value(s): = "Yes"

SeqNo: 2794
Long Name: Blood Products Transfused - Cryoprecipitate - Units Transfused After 24 Hours Post-Procedure
Short Name: BldProdCryoGT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Cryoprecipitate the patient received after 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun

or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100
Parent Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdGT24
Parent Value(s): = "Yes"

SeqNo: 2795
Long Name: Blood Products Transfused - Fresh Whole Blood - Units Transfused After 24 Hours Post-Procedure
Short Name: BldProdFreshWBGT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Fresh Whole Blood (< 72 Hours post-collection) the patient received after 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdGT24
Parent Value(s): = "Yes"

SeqNo: 2796
Long Name: Blood Products Transfused - Whole Blood - Units Transfused After 24 Hours Post-Procedure
Short Name: BldProdWBGT24
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the number of units of Whole Blood (> 72 hours post-collection) the patient received after 24 hours post-procedure. Unit(s) are defined as aliquots of blood originating from a single donor, regardless of volume transfused from that donation. For example, two 50 ml aliquots of PRBCs from the same donor count as ONE (1) unit. Two aliquots from DIFFERENT donors count as TWO (2) units.

Units that are split over multiple time periods, such as starting a unit in the OR and finishing it in the ICU should be assigned to the period where the transfusion was begun or where the majority of the unit is given. The intent is not to double count a single unit.

Low Value: 0 High Value: 100

Parent Long Name: Transfusion of Blood Products After 24 Hours Post-Procedure
Parent Short Name: TransfusBldProdGT24
Parent Value(s): = "Yes"

SeqNo: 2797
Long Name: Directed Donor Units
Short Name: DirDonorUnits
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received any directed donor transfusions during this procedure.

Parent Long Name: Transfusion of Non-Autologous Blood Products During or After
Parent Short Name: TransfusBldProdAny
Parent Value(s): = "Yes"

SeqNo: 2798
Long Name: Antifibrinolytic Used Intraoperatively
Short Name: AntifibUsage
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether antifibrinolytics were used intraoperatively.

SeqNo: 2799
Long Name: Epsilon Amino-Caproic Acid (Amicar,EACA) Used
Short Name: AntifibEpUse
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether EACA was used.

Parent Long Name: Antifibrinolytic Used Intraoperatively

Parent Short Name: AntifibUsage
Parent Value(s): = "Yes"

SeqNo: 2800
Long Name: Epsilon Amino-Caproic Acid (Amicar,EACA) Load mg/kg
Short Name: AntifibEpLoad
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the loading dose in mg/kg of epsilon aminocaproic acid (Amicar) given during this procedure. Enter zero if no loading dose given.

Low Value: 0 High Value: 300

Parent Long Name: Epsilon Amino-Caproic Acid (Amicar,EACA) Used
Parent Short Name: AntifibEpUse
Parent Value(s): = "Yes"

July 2016: I'm confused with the Antifibrinolytic section. I have a new surgeon who has Anesthesia give 100mg/kg bolus as they go on pump and as they come off. The perfusionist also gives one bolus dose of 100mg/kg. They do not give an infusion. So do I count the 1st bolus by Anesthesia as the answer to sequence AntifibEpLoad(2800), then the Perfusion dose in sequence AntifibEpPrime (2801) And then the infusion would 0 for sequence AntifibEpInfRate (2803). And my second bolus from Anesthesia as they go off pump doesn't go anywhere? Is the goal of this section to capture the amount of Amicar used or just know the mg/kg dosed. Also, please give more guidance on sequence AntifibEpPrimeDose (2802). If there is a value populated in seq 2802, wouldn't seq 2801 always be yes since it's in the prime for the pump? For example, my perfusionists add 100mg/kg to the pump prime but I would assume to do that they would have to figure out mg/ml in order to add it to the bag. **This is sort of an unusual dosing schema and doesn't neatly fit into our algorithm honestly. Most institutions I am familiar with utilize a combination of bolus and then infusion with an additional bolus in the pump prime.**
July 2018: AMICAR dosing calculation Question AntifibEpLoad (SEQ 2800) Load mg/kg. Do we use the total amount received - For example: if given 40mg/kg with a weight of 3.5 kg, is the correct amount 3.5*40 = 140 or is it just 40mg? **The answer should be the total loading dose administered. You need to do the calculation to determine the dose. In this example, the answer is 140mg.**

SeqNo: 2801
Long Name: Epsilon Amino-Caproic Acid (Amicar,EACA) Pump Prime mg/kg
Short Name: AntifibEpPrime
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the pump priming dose in mg/kg of epsilon aminocaproic acid (Amicar) given during this procedure. Enter zero if no pump priming dose given.

Low Value: 0 High Value: 300

Parent Long Name: Epsilon Amino-Caproic Acid (Amicar,EACA) Used
Parent Short Name: AntifibEpUse
Parent Value(s): = "Yes"

SeqNo: 2802
Long Name: EACA Dosed As mg per ml of Pump Prime
Short Name: AntifibEpPrimeDose
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the Epsilon Amino-Caproic Acid was dosed as mg per ml of Pump Prime.

Parent Long Name: Epsilon Amino-Caproic Acid (Amicar,EACA) Pump Prime mg/kg
Parent Short Name: AntifibEpPrime
Parent Value(s): >0

SeqNo: 2803
Long Name: Epsilon Amino-Caproic Acid (Amicar,EACA) Infusion Rate mg/kg/hr
Short Name: AntifibEpInfRate
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the infusion rate in mg/kg/hour of epsilon aminocaproic acid (Amicar) given during this procedure. Enter zero if no infusion initiated.

Low Value: 0 High Value: 200

Parent Long Name: Epsilon Amino-Caproic Acid (Amicar,EACA) Used
Parent Short Name: AntifibEpUse
Parent Value(s): = "Yes"

SeqNo: 2804
Long Name: Tranexamic Acid Used
Short Name: AntifibTranexUse
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether tranexamic acid was used during this procedure.

Parent Long Name: Antifibrinolytic Used Intraoperatively
Parent Short Name: AntifibUsage
Parent Value(s): = "Yes"

September 2016: Our Tranexamic Acid documentation is done as "1000mg" IV or "500mg" IV. I don't see a loading dose or pump prime or it given as mg/kg. How do I document the doses given? **Document one dose in the loading dose field and document one dose in the pump prime field. Leave the infusion rate field blank or document "0".**

October 2016: We document Tranexamic use in two ways: pump prime (covered by Sequence #2806) and then as bolus doses for every 6 hours of surgery. How do I code the bolus doses? And is Antifibrinolytic use a required field affecting star rating and M&M? **Document the initial bolus as the loading dose and then the rate would be "0". Antifibrinolytic use does not affect the star rating.**

SeqNo: 2805
Long Name: Tranexamic Acid Load mg/kg
Short Name: AntifibTranexLoad
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the loading dose in mg/kg of tranexamic acid given during this procedure. Enter zero if no loading dose given.

Low Value: 0 High Value: 150

Parent Long Name: Tranexamic Acid Used
Parent Short Name: AntifibTranexUse
Parent Value(s): = "Yes"

SeqNo: 2806
Long Name: Tranexamic Acid Pump Prime mg/kg
Short Name: AntifibTranexPrime
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the pump priming dose in mg/kg of tranexamic acid given during this procedure. Enter zero if no pump priming dose given.

Low Value: 0 High Value: 150

Parent Long Name: Tranexamic Acid Used
Parent Short Name: AntifibTranexUse
Parent Value(s): = "Yes"

SeqNo: 2807
Long Name: Tranexamic Dosed As mg per ml of Pump Prime
Short Name: AntifibTranexPrimeDose
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the Tranexamic was dosed as mg per ml of Pump Prime.

Parent Long Name: Tranexamic Acid Pump Prime mg/kg
Parent Short Name: AntifibTranexPrime
Parent Value(s): >0

SeqNo: 2809
Long Name: Tranexamic Acid Infusion Rate mg/kg/hr
Short Name: AntifibTranexInfRate
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the infusion rate in mg/kg/hour of tranexamic acid given during this procedure. Enter zero if no infusion initiated.

Low Value: 0 High Value: 50

Parent Long Name: Tranexamic Acid Used
Parent Short Name: AntifibTranexUse
Parent Value(s): = "Yes"

May 2016: The question is asking for rate of TXA infusion in mg/kg/hr. It will not let me enter a decimal point, it is only accepting whole numbers. For example, the anesthesia record documents an infusion rate of 3.1mg/kg/hr for a total of 477 minutes. The field will not accept 3.1 it will only accept 3. Rounding on medication dosages to the nearest whole number is extremely inaccurate. Now, I cannot tell if this issue lies within my software, Axis Pats, or with the new version. **I confirmed with DCRI and that field is an integer field, so the software is working as it should. This field was an integer even in the previous data version 3.22.**

SeqNo: 2810
Long Name: Trasylol (Aprotinin) Used
Short Name: AntifibTrasylUse
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether trasylol (aprotinin) was given to the patient during this procedure.

Parent Long Name: Antifibrinolytic Used Intraoperatively
Parent Short Name: AntifibUsage

Parent Value(s): = "Yes"

SeqNo: 2811
Long Name: Trasylol (Aprotinin) Load cc/kg
Short Name: AntifibTrasylLoad
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the loading dose of trasylol (aprotinin) in cc/kg used during this procedure. Enter zero if no loading dose was used.

Low Value: 0 High Value: 10

Parent Long Name: Trasylol (Aprotinin) Used
Parent Short Name: AntifibTrasylUse
Parent Value(s): = "Yes"

SeqNo: 2812
Long Name: Trasylol (Aprotinin) Pump Prime cc/kg
Short Name: AntifibTrasylPrime
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the pump priming dose of trasylol (aprotinin) in cc/kg used during this procedure. Enter zero if no pump priming dose was used.

Low Value: 0 High Value: 10

Parent Long Name: Trasylol (Aprotinin) Used
Parent Short Name: AntifibTrasylUse
Parent Value(s): = "Yes"

SeqNo: 2813
Long Name: Trasylol (Aprotinin) Infusion Rate cc/kg/hr
Short Name: AntifibTrasylInfRate
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the infusion rate of trasylol (aprotinin) in cc/kg/hour used during this procedure. Enter zero if no infusion initiated.

Low Value: 0 High Value: 10

Parent Long Name: Trasylol (Aprotinin) Used
Parent Short Name: AntifibTrasylUse
Parent Value(s): = "Yes"

SeqNo: 2815
Long Name: Procoagulent Used Intraoperatively
Short Name: ProcoagUsage
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether procoagulents were used intraoperatively

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SeqNo: 2816
Long Name: Factor VIIa (Novoseven) Usage
Short Name: ProcoagFactorVIIa
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Factor VIIa (Novoseven) was administered intraoperatively.

Parent Long Name: Procoagulent Used Intraoperatively
Parent Short Name: ProcoagUsage
Parent Value(s): = "Yes"

SeqNo: 2817
Long Name: Factor VIIa (Novoseven) mcg/kg - Dose 1
Short Name: ProcoagFactorVIIa1
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the first dose in micrograms per kilogram of Factor VIIa given during this procedure.

Low Value: 1 High Value: 200

Parent Long Name: Factor VIIa (Novoseven) Usage
Parent Short Name: ProcoagFactorVIIa
Parent Value(s): = "Yes"

SeqNo: 2818

Long Name: Factor VIIa (Novoseven) mcg/kg - Dose 2
Short Name: ProcoagFactorVIIa2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the second dose in micrograms per kilogram of Factor VIIa given during this procedure. Enter zero if no second dose given.

Low Value: 0 High Value: 200

Parent Long Name: Factor VIIa (Novoseven) Usage
Parent Short Name: ProcoagFactorVIIa
Parent Value(s): = "Yes"

SeqNo: 2819
Long Name: Factor VIIa (Novoseven) mcg/kg - Dose 3
Short Name: ProcoagFactorVIIa3
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the third dose in micrograms per kilogram of Factor VIIa given during this procedure. Enter zero if no third dose given.

Low Value: 0 High Value: 200

Parent Long Name: Factor VIIa (Novoseven) mcg/kg - Dose 2
Parent Short Name: ProcoagFactorVIIa2
Parent Value(s): >0

SeqNo: 2823
Long Name: Prothrombin Complex Concentrate - 4 (PCC-4, KCentra) Usage
Short Name: ProCmplxCon4
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Prothrombin Complex Concentrate - 4 (PCC-4, KCentra) was administered intraoperatively.

Parent Long Name: Procoagulent Used Intraoperatively
Parent Short Name: ProcoagUsage
Parent Value(s): = "Yes"

SeqNo: 2824

Long Name: Prothrombin Complex Concentrate - 4 (PCC-4, KCentra) units/kg - Dose 1
Short Name: ProCmplxCon4Ds1
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the first dose in units per kilogram of Prothrombin Complex Concentrate - 4 (PCC-4, KCentra).

Low Value: 1 High Value: 100

Parent Long Name: Prothrombin Complex Concentrate - 4 (PCC-4, KCentra) Usage
Parent Short Name: ProCmplxCon4
Parent Value(s): = "Yes"

SeqNo: 2825
Long Name: Prothrombin Complex Concentrate - 4 (PCC-4, KCentra) units/kg - Dose 2
Short Name: ProCmplxCon4Ds2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the second dose in units per kilogram of Prothrombin Complex Concentrate - 4 (PCC-4, KCentra). Enter zero if no second dose given.

Low Value: 0 High Value: 100

Parent Long Name: Prothrombin Complex Concentrate - 4 (PCC-4, KCentra) Usage
Parent Short Name: ProCmplxCon4
Parent Value(s): = "Yes"

SeqNo: 2826
Long Name: Prothrombin Complex Concentrate - 4 (PCC-4, KCentra) units/kg - Dose 3
Short Name: ProCmplxCon4Ds3
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the third dose in units per kilogram of Prothrombin Complex Concentrate - 4 (PCC-4, KCentra). Enter zero if no third dose given.
Low Value: 0 High Value: 100

Parent Long Name: Prothrombin Complex Concentrate - 4 (PCC-4, KCentra) units/kg - Dose 2
Parent Short Name: ProCmplxCon4Ds2
Parent Value(s): >0

SeqNo: 2827
Long Name: Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA) Usage
Short Name: ProCmplxCon4W7a
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA) was administered intraoperatively.

Parent Long Name: Procoagulent Used Intraoperatively
Parent Short Name: ProcoagUsage
Parent Value(s): = "Yes"

SeqNo: 2828
Long Name: Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA) units/kg - Dose 1
Short Name: ProCmplxCon4W7a1
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the first dose in units per kilogram of Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA).

Low Value: 1 High Value: 200

Parent Long Name: Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA) Usage
Parent Short Name: ProCmplxCon4W7a
Parent Value(s): = "Yes"

SeqNo: 2829
Long Name: Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA) units/kg - Dose 2
Short Name: ProCmplxCon4W7a2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the second dose in units per kilogram of Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA). Enter zero if no second dose given.

Low Value: 0 High Value: 200

Parent Long Name: Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA) Usage
Parent Short Name: ProCmplxCon4W7a
Parent Value(s): = "Yes"

SeqNo: 2830
Long Name: Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA) units/kg - Dose 3
Short Name: ProCmplxCon4W7a3
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the third dose in units per kilogram of Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA). Enter zero if no third dose given.

Low Value: 0 High Value: 200

Parent Long Name: Prothrombin Complex Concentrate - 4 With Factor VIIa (FEIBA) units/kg - Dose 2
Parent Short Name: ProCmplxCon4W7a2
Parent Value(s): >0

SeqNo: 2831
Long Name: Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD) Usage
Short Name: ProCmplxCon3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD) was administered intraoperatively.

Parent Long Name: Procoagulent Used Intraoperatively
Parent Short Name: ProcoagUsage
Parent Value(s): = "Yes"

SeqNo: 2832
Long Name: Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD) units/kg - Dose 1
Short Name: ProCmplxCon3Ds1
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the first dose in units per kilogram of Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD).
Low Value: 1 High Value: 5
Parent Long Name: Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD) Usage
Parent Short Name: ProCmplxCon3
Parent Value(s): = "Yes"

SeqNo: 2833

Long Name: Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD) units/kg - Dose 2
Short Name: ProCmplxCon3Ds2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the second dose in units per kilogram of Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD). Enter zero if no second dose given.

Low Value: 0 High Value: 5

Parent Long Name: Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD) Usage
Parent Short Name: ProCmplxCon3
Parent Value(s): = "Yes"

SeqNo: 2834
Long Name: Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD) units/kg - Dose 3
Short Name: ProCmplxCon3Ds3
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the third dose in units per kilogram of Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD). Enter zero if no third dose given.

Low Value: 0 High Value: 5

Parent Long Name: Prothrombin Complex Concentrate - 3 (PCC-3, ProfilNine-SD) units/kg - Dose 2
Parent Short Name: ProCmplxCon3Ds2
Parent Value(s): >0

SeqNo: 2835
Long Name: Octaplex Prothrombin Concentrate Usage
Short Name: Octaplex
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Octaplex Prothrombin Concentrate was administered intraoperatively.

Parent Long Name: Procoagulent Used Intraoperatively
Parent Short Name: ProcoagUsage
Parent Value(s): = "Yes"

SeqNo: 2836

Long Name: Octaplex Prothrombin Concentrate Units - Dose 1
Short Name: OctaplexDs1
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the first dose in international units (IU) of Octaplex Prothrombin Concentrate.

Low Value: 1 High Value: 6000

Parent Long Name: Octaplex Prothrombin Concentrate Usage
Parent Short Name: Octaplex
Parent Value(s): = "Yes"

SeqNo: 2837
Long Name: Octaplex Prothrombin Concentrate Units - Dose 2
Short Name: OctaplexDs2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the second dose in international units (IU) of Octaplex Prothrombin Concentrate.

Low Value: 0 High Value: 6000

Parent Long Name: Octaplex Prothrombin Concentrate Usage
Parent Short Name: Octaplex
Parent Value(s): = "Yes"

SeqNo: 2838
Long Name: Octaplex Prothrombin Concentrate Units - Dose 3
Short Name: OctaplexDs3
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the third dose in international units (IU) of Octaplex Prothrombin Concentrate.

Low Value: 0 High Value: 6000

Parent Long Name: Octaplex Prothrombin Concentrate Units - Dose 2
Parent Short Name: OctaplexDs2
Parent Value(s): >0

SeqNo: 2840

Long Name: Fibrinogen Concentrate Usage
Short Name: ProcoagFibrin
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Fibrinogen Concentrate was administered intraoperatively.

Parent Long Name: Procoagulent Used Intraoperatively
Parent Short Name: ProcoagUsage
Parent Value(s): = "Yes"

SeqNo: 2841
Long Name: Fibrinogen Concentrate mg/kg - Dose 1
Short Name: ProcoagFibrin1
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the first dose in mg per kilogram of fibrinogen concentrate given during this procedure.

Low Value: 1 High Value: 100

Parent Long Name: Fibrinogen Concentrate Usage
Parent Short Name: ProcoagFibrin
Parent Value(s): = "Yes"

SeqNo: 2842
Long Name: Fibrinogen Concentrate mg/kg - Dose 2
Short Name: ProcoagFibrin2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the second dose in mg per kilogram of fibrinogen concentrate given during this procedure. Enter zero if no second dose given.

Low Value: 0 High Value: 100

Parent Long Name: Fibrinogen Concentrate Usage
Parent Short Name: ProcoagFibrin
Parent Value(s): = "Yes"

SeqNo: 2843

Long Name: Fibrinogen Concentrate mg/kg - Dose 3
Short Name: ProcoagFibrin3
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the third dose in mg per kilogram of fibrinogen concentrate given during this procedure. Enter zero if no third dose given.

Low Value: 0 High Value: 100

Parent Long Name: Fibrinogen Concentrate mg/kg - Dose 2
Parent Short Name: ProcoagFibrin2
Parent Value(s): >0

SeqNo: 2844
Long Name: Antithrombin 3 (AT3) Concentrate Usage
Short Name: ProcoagAntithrom
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Antithrombin 3 (AT3) Concentrate was administered intraoperatively.

Parent Long Name: Procoagulent Used Intraoperatively
Parent Short Name: ProcoagUsage
Parent Value(s): = "Yes"

SeqNo: 2845
Long Name: Antithrombin 3 Concentrate units - Dose 1
Short Name: ProcoagAntithrom1
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the first dose in units of antithrombin 3 concentrate given during this procedure.
Low Value: 1 High Value: 5000

Parent Long Name: Antithrombin 3 (AT3) Concentrate Usage
Parent Short Name: ProcoagAntithrom
Parent Value(s): = "Yes"

SeqNo: 2846
Long Name: Antithrombin 3 Concentrate units - Dose 2

Short Name: ProcoagAntithrom2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the second dose in units of antithrombin 3 concentrate given during this procedure. Enter zero if no second dose given.

Low Value: 0 High Value: 5000

Parent Long Name: Antithrombin 3 (AT3) Concentrate Usage
Parent Short Name: ProcoagAntithrom
Parent Value(s): = "Yes"

SeqNo: 2847
Long Name: Antithrombin 3 Concentrate units - Dose 3
Short Name: ProcoagAntithrom3
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the third dose in units of antithrombin 3 concentrate given during this procedure. Enter zero if no third dose given.

Low Value: 0 High Value: 5000

Parent Long Name: Antithrombin 3 Concentrate units - Dose 2
Parent Short Name: ProcoagAntithrom2
Parent Value(s): >0

SeqNo: 2848
Long Name: Desmopressin (DDAVP) Usage
Short Name: ProcoagDesmo
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether Desmopressin (DDAVP) was administered intraoperatively.

Parent Long Name: Procoagulent Used Intraoperatively
Parent Short Name: ProcoagUsage
Parent Value(s): = "Yes"

SeqNo: 2849
Long Name: Desmopressin (DDAVP) mcg/kg - Dose 1
Short Name: ProcoagDesmo1

Database Table Name: Operations
Data Source: User
Format: Real, 2 decimal places
Definition: Indicate the first dose in micrograms per kilogram of desmopressin (DDAVP) given during this procedure.

Low Value: 0.01 High Value: 6.00

Parent Long Name: Desmopressin (DDAVP) Usage
Parent Short Name: ProcoagDesmo
Parent Value(s): = "Yes"

SeqNo: 2850
Long Name: Desmopressin (DDAVP) mcg/kg - Dose 2
Short Name: ProcoagDesmo2
Database Table Name: Operations
Data Source: User
Format: Real, 2 decimal places
Definition: Indicate the second dose in micrograms per kilogram of desmopressin (DDAVP) given during this procedure. Enter zero if no second dose given.

Low Value: 0.00 High Value: 6.00

Parent Long Name: Desmopressin (DDAVP) Usage
Parent Short Name: ProcoagDesmo
Parent Value(s): = "Yes"

SeqNo: 2851
Long Name: Desmopressin (DDAVP) mcg/kg - Dose 3
Short Name: ProcoagDesmo3
Database Table Name: Operations
Data Source: User
Format: Real, 2 decimal places
Definition: Indicate the third dose in micrograms per kilogram of desmopressin (DDAVP) given during this procedure. Enter zero if no third dose given.

Low Value: 0.00 High Value: 6.00

Parent Long Name: Desmopressin (DDAVP) mcg/kg - Dose 2
Parent Short Name: ProcoagDesmo2
Parent Value(s): >0

SeqNo: 2852

Long Name: Point Of Care Coagulation Testing Utilized Intraoperatively
Short Name: POCCoagTstUtil
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether point of care coagulation testing was utilized intraoperatively.

April 2018: For sites using ACT monitoring intraoperatively, should we select 'yes' for SeqNo 2852, and deselect all the child fields? Or select 'no' for SeqNo 2852, since ACT isn't specified in the child fields? **Select no to POC monitoring. ACT will be included in the next data spec upgrade.**

SeqNo: 2853
Long Name: Point Of Care Coagulation Testing - Thromboelastography (TEG)
Short Name: POCCoagTstTEG
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether point of care coagulation testing included Thromboelastography (TEG).

Parent Long Name: Point Of Care Coagulation Testing Utilized Intraoperatively
Parent Short Name: POCCoagTstUtil
Parent Value(s): = "Yes"

SeqNo: 2854
Long Name: Point Of Care Coagulation Testing - ROTEM
Short Name: POCCoagTstROTEM
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether point of care coagulation testing included ROTEM.

Parent Long Name: Point Of Care Coagulation Testing Utilized Intraoperatively
Parent Short Name: POCCoagTstUtil
Parent Value(s): = "Yes"

SeqNo: 2855
Long Name: Point Of Care Coagulation Testing - Sonoclot
Short Name: POCCoagTstSon
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether point of care coagulation testing included Sonoclot.

Parent Long Name: Point Of Care Coagulation Testing Utilized Intraoperatively

Parent Short Name: POCCoagTstUtil
Parent Value(s): = "Yes"

SeqNo: 2856
Long Name: Point Of Care Coagulation Testing - Heparin Concentration (Hepcon, HMS)
Short Name: POCCoagTstHep
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether point of care coagulation testing included Heparin Concentration (Hepcon, HMS).

Parent Long Name: Point Of Care Coagulation Testing Utilized Intraoperatively
Parent Short Name: POCCoagTstUtil
Parent Value(s): = "Yes"

SeqNo: 2857
Long Name: Point Of Care Coagulation Testing - INR/PT/aPTT (iStat or equivalent)
Short Name: POCCoagTstINR
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether point of care coagulation testing included INR/PT/aPTT (iStat or equivalent).

Parent Long Name: Point Of Care Coagulation Testing Utilized Intraoperatively
Parent Short Name: POCCoagTstUtil
Parent Value(s): = "Yes"

---

12. CABG Procedures

SeqNo: 2900
Long Name: CAB
Short Name: OpCAB
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether coronary artery bypass grafting was done.

Parent Long Name: Operation Type

Parent Short Name: OpType
Parent Value(s): = "CPB" or "No CPB Cardiovascular"

SeqNo: 2910
Long Name: Dist Anast - Art #
Short Name: DistArt
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the total number of distal anastomoses with arterial conduits, whether IMA, radial artery, etc.

Low Value: 0 High Value: 9

Parent Long Name: CAB
Parent Short Name: OpCAB
Parent Value(s): = "Yes"

SeqNo: 2920
Long Name: Dist Anast - Vein #
Short Name: DistVein
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the total number of distal anastomoses with venous conduits.

Low Value: 0 High Value: 9

Parent Long Name: CAB
Parent Short Name: OpCAB
Parent Value(s): = "Yes"

SeqNo: 2930
Long Name: IMA Artery Used
Short Name: IMAArtUs
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate which, if any, Internal Mammary Artery(ies) (IMA) were used for grafts.

Parent Long Name: CAB
Parent Short Name: OpCAB
Parent Value(s): = "Yes"

---

13. Valve Procedures

SeqNo: 2940
Long Name: Valve
Short Name: OpValve
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a surgical procedure was done on the Aortic, Mitral, Tricuspid, Pulmonic, common AV valve or truncal valve.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB" or "No CPB Cardiovascular"

May 2018: This field asks if a procedure was done on a valve. You could say a valve procedure was done if you did a mitral cleft with a CAVC, or a TV repair with a VSD closure. Is the intent to capture every single valve procedure done, no matter how minor, or are there some guidelines re: the types of valve procedures you would like the data managers to capture.
Answer the question whether a surgical procedure was done on any valve. If yes, then answer the subsequent question regarding whether a valve device of any type was explanted and/or implanted during the procedure. If nothing was explanted and/or implanted, then answer no. Otherwise complete the information accordingly.

SeqNo: 3140
Long Name: Valve Device Explanted And/Or Implanted
Short Name: ValExImp
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a valve device of any type was explanted and/or implanted during this procedure.

Parent Long Name: Valve
Parent Short Name: OpValve
Parent Value(s): = "Yes"

September 2017: History of severe pulmonary insufficiency status post pulmonary valvotomy for congenital pulmonary stenosis. Now having RVOT reconstruction with 24 mm expanded polytetrafluoroethylene (ePTFE) valve conduit. Do I mark that a valve was explanted and implanted or just implanted? **Valve implanted only.**

SeqNo: 3150
Long Name: Valve Explant Type #1
Short Name: ValExType1
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of the first valve or device explanted

Parent Long Name: Valve Device Explanted And/Or Implanted
Parent Short Name: ValExImp
Parent Value(s): = "Yes, Explanted" or "Yes, Explanted and Implanted"

SeqNo: 3151
Long Name: Valve Explant Unique Device Identifier (UDI) - 1
Short Name: ValExpUDI1
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the first explanted valve device if available, otherwise leave blank.

Parent Long Name: Valve Device Explanted And/Or Implanted
Parent Short Name: ValExImp
Parent Value(s): = "Yes, Explanted" or "Yes, Explanted and Implanted"

SeqNo: 3160
Long Name: Second Valve Explanted or Device Removed
Short Name: ValEx2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a second valve or device was explanted

Parent Long Name: Valve Device Explanted And/Or Implanted
Parent Short Name: ValExImp
Parent Value(s): = "Yes, Explanted" or "Yes, Explanted and Implanted"

SeqNo: 3170
Long Name: Valve Explant Type #2
Short Name: ValExType2
Database Table Name: Operations
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate the type of the second valve or device explanted

Parent Long Name: Second Valve Explanted or Device Removed
Parent Short Name: ValEx2
Parent Value(s): = "Yes"

SeqNo: 3171
Long Name: Valve Explant Unique Device Identifier (UDI) - 2
Short Name: ValExpUDI2
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the second explanted valve device if available, otherwise leave blank.

Parent Long Name: Second Valve Explanted or Device Removed
Parent Short Name: ValEx2
Parent Value(s): = "Yes"

SeqNo: 3180
Long Name: Third Valve Explanted or Device Removed
Short Name: ValEx3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a third valve or device was explanted

Parent Long Name: Second Valve Explanted or Device Removed
Parent Short Name: ValEx2
Parent Value(s): = "Yes"

SeqNo: 3190
Long Name: Valve Explant Type #3
Short Name: ValExType3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of the third valve or device explanted

Parent Long Name: Third Valve Explanted or Device Removed
Parent Short Name: ValEx3

Parent Value(s): = "Yes"

SeqNo: 3191
Long Name: Valve Explant Unique Device Identifier (UDI) - 3
Short Name: ValExpUDI3
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the third explanted valve device if available, otherwise leave blank.

Parent Long Name: Third Valve Explanted or Device Removed
Parent Short Name: ValEx3
Parent Value(s): = "Yes"

SeqNo: 3200
Long Name: Fourth Valve Explanted or Device Removed
Short Name: ValEx4
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a fourth valve or device was explanted

Parent Long Name: Third Valve Explanted or Device Removed
Parent Short Name: ValEx3
Parent Value(s): = "Yes"

SeqNo: 3210
Long Name: Valve Explant Type #4
Short Name: ValExType4
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of the fourth valve or device explanted

Parent Long Name: Fourth Valve Explanted or Device Removed
Parent Short Name: ValEx4
Parent Value(s): = "Yes"

SeqNo: 3211
Long Name: Valve Explant Unique Device Identifier (UDI) - 4

Short Name: ValExpUDI4
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the fourth explanted valve device if available, otherwise leave blank.

Parent Long Name: Fourth Valve Explanted or Device Removed
Parent Short Name: ValEx4
Parent Value(s): = "Yes"

SeqNo: 3220
Long Name: Valve Implant Location #1
Short Name: ValImpLoc1
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the location of the first valve or device implanted

Parent Long Name: Valve Device Explanted And/Or Implanted
Parent Short Name: ValExImp
Parent Value(s): = "Yes, Implanted" or "Yes, Explanted and Implanted"

SeqNo: 3230
Long Name: Valve Implant Type #1
Short Name: ValImpType1
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of the first valve or device implanted

Parent Long Name: Valve Device Explanted And/Or Implanted
Parent Short Name: ValExImp
Parent Value(s): = "Yes, Implanted" or "Yes, Explanted and Implanted"

May 2018: What is meant by surgeon fashioned? If a commercially supplied device is altered, does this count?
If a commercially supplied device is used at all, regardless of surgeon alterations, select commercially supplied device. Possibly address this with the spec upgrade?

SeqNo: 3240
Long Name: Valve Implant Surgeon Fashioned Material #1
Short Name: ValImpSFMat1

Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the material used to fashion the first valve or device

Parent Long Name: Valve Implant Type #1
Parent Short Name: ValImpType1
Parent Value(s): = "Surgeon fashioned"

SeqNo: 3250
Long Name: Valve Implant Commercial Device Model Number #1
Short Name: ValImpComMod1
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the name of the prosthesis implanted. The names provided include the manufacturer's model number with "xx" substituting for the device size. Note that the model number is different from the serial number.

Parent Long Name: Valve Implant Type #1
Parent Short Name: ValImpType1
Parent Value(s): = "Commercially supplied device"

SeqNo: 3260
Long Name: Valve Implant Commercial Device Size #1
Short Name: ValImpComSz1
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the size of the first implanted valve or device

Low Value: 5 High Value: 50

Parent Long Name: Valve Implant Type #1
Parent Short Name: ValImpType1
Parent Value(s): = "Commercially supplied device"

SeqNo: 3261
Long Name: Valve Implant Unique Device Identifier (UDI) - 1
Short Name: ValImpUDI1
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75

Definition: Indicate the Unique Device Identifier (UDI) of the first implanted valve device if available, otherwise leave blank.

Parent Long Name: Valve Device Explanted And/Or Implanted
Parent Short Name: ValExImp
Parent Value(s): = "Yes, Implanted" or "Yes, Explanted and Implanted"

SeqNo: 3270
Long Name: Second Valve Implant
Short Name: ValImp2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a second valve or device was implanted

Parent Long Name: Valve Device Explanted And/Or Implanted
Parent Short Name: ValExImp
Parent Value(s): = "Yes, Implanted" or "Yes, Explanted and Implanted"

SeqNo: 3280
Long Name: Valve Implant Location #2
Short Name: ValImpLoc2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the location of the second valve or device implanted

Parent Long Name: Second Valve Implant
Parent Short Name: ValImp2
Parent Value(s): = "Yes"

SeqNo: 3290
Long Name: Valve Implant Type #2
Short Name: ValImpType2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of the second valve or device implanted

Parent Long Name: Second Valve Implant
Parent Short Name: ValImp2
Parent Value(s): = "Yes"

SeqNo: 3300
Long Name: Valve Implant Surgeon Fashioned Material #2
Short Name: ValImpSFMat2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the material used to fashion the second valve or device

Parent Long Name: Valve Implant Type #2
Parent Short Name: ValImpType2
Parent Value(s): = "Surgeon fashioned"

SeqNo: 3310
Long Name: Valve Implant Commercial Device Model Number #2
Short Name: ValImpComMod2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the name of the prosthesis implanted. The names provided include the manufacturer's model number with "xx" substituting for the device size.

Parent Long Name: Valve Implant Type #2
Parent Short Name: ValImpType2
Parent Value(s): = "Commercially supplied device"

SeqNo: 3320
Long Name: Valve Implant Commercial Device Size #2
Short Name: ValImpComSz2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the size of the second implanted valve or device

Low Value: 5 High Value: 50
Parent Long Name: Valve Implant Type #2
Parent Short Name: ValImpType2
Parent Value(s): = "Commercially supplied device"

SeqNo: 3321
Long Name: Valve Implant Unique Device Identifier (UDI) - 2
Short Name: ValImpUDI2

Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the second implanted valve device if available, otherwise leave blank.

Parent Long Name: Second Valve Implant
Parent Short Name: ValImp2
Parent Value(s): = "Yes"

SeqNo: 3330
Long Name: Third Valve Implant
Short Name: ValImp3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a third valve or device was implanted

Parent Long Name: Second Valve Implant
Parent Short Name: ValImp2
Parent Value(s): = "Yes"

SeqNo: 3340
Long Name: Valve Implant Location #3
Short Name: ValImpLoc3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the location of the third valve or device implanted

Parent Long Name: Third Valve Implant
Parent Short Name: ValImp3
Parent Value(s): = "Yes"

SeqNo: 3350
Long Name: Valve Implant Type #3
Short Name: ValImpType3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of the third valve or device implanted

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Parent Long Name: Third Valve Implant
Parent Short Name: ValImp3
Parent Value(s): = "Yes"

SeqNo: 3360
Long Name: Valve Implant Surgeon Fashioned Material #3
Short Name: ValImpSFMat3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the material used to fashion the third valve or device

Parent Long Name: Valve Implant Type #3
Parent Short Name: ValImpType3
Parent Value(s): = "Surgeon fashioned"

SeqNo: 3370
Long Name: Valve Implant Commercial Device Model Number #3
Short Name: ValImpComMod3
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the name of the prosthesis implanted. The names provided include the manufacturer's model number with "xx" substituting for the device size.

Parent Long Name: Valve Implant Type #3
Parent Short Name: ValImpType3
Parent Value(s): = "Commercially supplied device"

SeqNo: 3380
Long Name: Valve Implant Commercial Device Size #3
Short Name: ValImpComSz3
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the size of the third implanted valve or device

Low Value: 5 High Value: 50

Parent Long Name: Valve Implant Type #3
Parent Short Name: ValImpType3
Parent Value(s): = "Commercially supplied device"

SeqNo: 3381
Long Name: Valve Implant Unique Device Identifier (UDI) - 3
Short Name: ValImpUDI3
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the third implanted valve device if available, otherwise leave blank.

Parent Long Name: Third Valve Implant
Parent Short Name: ValImp3
Parent Value(s): = "Yes"

SeqNo: 3390
Long Name: Fourth Valve Implant
Short Name: ValImp4
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a fourth valve or device was implanted

Parent Long Name: Third Valve Implant
Parent Short Name: ValImp3
Parent Value(s): = "Yes"

SeqNo: 3400
Long Name: Valve Implant Location #4
Short Name: ValImpLoc4
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the location of the fourth valve or device implanted

Parent Long Name: Fourth Valve Implant
Parent Short Name: ValImp4
Parent Value(s): = "Yes"

SeqNo: 3410
Long Name: Valve Implant Type #4
Short Name: ValImpType4
Database Table Name: Operations

Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of the fourth valve or device implanted

Parent Long Name: Fourth Valve Implant
Parent Short Name: ValImp4
Parent Value(s): = "Yes"

SeqNo: 3420
Long Name: Valve Implant Surgeon Fashioned Material #4
Short Name: ValImpSFMat4
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the material used to fashion the fourth valve or device

Parent Long Name: Valve Implant Type #4
Parent Short Name: ValImpType4
Parent Value(s): = "Surgeon fashioned"

SeqNo: 3430
Long Name: Valve Implant Commercial Device Model Number #4
Short Name: ValImpComMod4
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the name of the prosthesis implanted. The names provided include the manufacturer's model number with "xx" substituting for the device size.

Parent Long Name: Valve Implant Type #4
Parent Short Name: ValImpType4
Parent Value(s): = "Commercially supplied device"

SeqNo: 3440
Long Name: Valve Implant Commercial Device Size #4
Short Name: ValImpComSz4
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the size of the fourth implanted valve or device

Low Value: 5 High Value: 50
Parent Long Name: Valve Implant Type #4

Parent Short Name: ValImpType4
Parent Value(s): = "Commercially supplied device"

SeqNo: 3441
Long Name: Valve Implant Unique Device Identifier (UDI) - 4
Short Name: ValImpUDI4
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the fourth implanted valve device if available, otherwise leave blank.

Parent Long Name: Fourth Valve Implant
Parent Short Name: ValImp4
Parent Value(s): = "Yes"

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14. VAD Procedures

SeqNo: 3460
Long Name: VAD Explanted And/Or Implanted
Short Name: VADExImp
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a ventricular assist device (VAD) was explanted and/or implanted during this procedure.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular", "CPB Non-Cardiovascular", "ECMO", "Thoracic", "VAD Operation Done With CPB", "VAD Operation Done Without CPB." or "Other"

August 2018: When changing out a VAD pump, not the cannulas, are you supposed to code "yes, explanted and implanted"? The words explant and implant seem to imply more than switching the pump outside of the body. Also, if we are to code it this way, what if none of the reasons for explant apply? e.g. conversion from PediMag to Berlin. **Only code explanted or implanted if a device was actually explanted or implanted during that operation, otherwise answer no.**

SeqNo: 3500
Long Name: VAD-Indication for VAD
Short Name: VADInd
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the reason the patient is receiving the ventricular assist device (VAD).

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3560
Long Name: VAD-Implant Type
Short Name: VImpTy
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the initial type of VAD implanted.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, implanted" or "Yes, explanted and implanted"

September 2017: Question: Both a Berlin Heart LVAD and a Rotaflow RVAD were implanted in the same operation. What should I choose for Implant Type? **There is no current way to code both implanted VADS. This will be addressed with the upcoming spec upgrade. Perhaps code the VAD of the surgeons' choice.**
November 2017: A VAD was placed in a single ventricle patient, supporting his systemic circulation via his morphologic RV. Would you consider this an LVAD? **LVADs and RVADs short list to VAD but some software vendors force a decision to be made. Be consistent within your facility and what is going on with the patient specifically.**
April 2018: What is the correct way to capture an LVAD (berlin) and an RVAD (pedimag) when implanted during the same operation? Since entering both is not possible in the current version, which shall take precedence? **Code the VAD of the surgeon's preference. This will be addressed in the next data spec upgrade.**

SeqNo: 3570
Long Name: VAD-Product Type
Short Name: VProdTy
Database Table Name: Operations
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate the specific product implanted. Implant defined as physical placement of the VAD.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3571
Long Name: VAD Implant Unique Device Identifier (UDI)
Short Name: VADImpUDI
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the implanted VAD if available, otherwise leave blank.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3610
Long Name: VAD-Explant Reason
Short Name: VExpRsn
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the reason the VAD was explanted.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted" or "Yes, explanted and implanted"

SeqNo: 3611
Long Name: VAD Explant Unique Device Identifier (UDI)
Short Name: VADExpUDI
Database Table Name: Operations
Data Source: User
Format: Text Data Length: 75
Definition: Indicate the Unique Device Identifier (UDI) of the explanted VAD if available, otherwise leave blank.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted" or "Yes, explanted and implanted"

SeqNo: 3850
Long Name: VAD-Primary VAD Comp-Intracranial Bleed
Short Name: PVCmpBld
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the patient had an intracranial bleed, confirmed by CT scan or other diagnostic studies.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted", "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3860
Long Name: VAD-Primary VAD Comp-Embolic Stroke
Short Name: PVCmpESt
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the patient had embolic stroke caused by a blood clot, air embolus, or tissue, confirmed by CT scan or other diagnostic studies.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted", "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3870
Long Name: VAD-Primary VAD Comp-Driveline and/or cannula Infection
Short Name: PVCmpDCI
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the patient had a driveline and/or cannula infection. Driveline and/or cannula infection is defined as the presence of erythema, drainage, or purulence at the VAD connection site whether entering or exiting the body in association with leukocytosis and in the presence of positive culture.

Parent Long Name: VAD Explanted And/Or Implanted

Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted", "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3880
Long Name: VAD-Primary VAD Comp-Pump Pocket Infection
Short Name: PVCmpPPI
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the patient had a pump pocket infection. A pump pocket infection is defined as a persistent drainage in the physical location of the pump, located preperitoneally or intra-abdominally with positive cultures from the pocket site.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted", "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3890
Long Name: VAD-Primary VAD Comp-VAD Endocarditis
Short Name: PVCmpEnd
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the patient had VAD endocarditis. VAD endocarditis is defined as an infection of the blood contacting surface of the VAD device itself. This may include:
- internal surfaces;
- graft material;
- inflow/outflow valves of the VAD.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted", "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3900
Long Name: VAD-Primary VAD Comp-Device Malfunction
Short Name: PVCmpMal
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the pump itself is not functioning properly causing hemodynamic compromise, and/or requiring immediate intervention or VAD replacement.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted", "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3910
Long Name: VAD-Primary VAD Comp-Bowel Obstruction
Short Name: PVCmpBO
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the patient was diagnosed with a bowel obstruction post VAD insertion by documentation in the medical record.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted", "Yes, implanted" or "Yes, explanted and implanted"

SeqNo: 3920
Long Name: VAD-Primary VAD Comp-Hemolysis
Short Name: PVCmpHemo
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate if the patient was diagnosed with hemolysis post VAD insertion by documentation in the medical record.

Parent Long Name: VAD Explanted And/Or Implanted
Parent Short Name: VADExImp
Parent Value(s): = "Yes, explanted", "Yes, implanted" or "Yes, explanted and implanted"

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15. Complications

SeqNo: 4180
Long Name: Complications Table Unique Record Identifier
Short Name: CompUniqueID
Database Table Name: Complications
Data Source: Automatic
Format: Text
Definition: Unique identifier for the record in the Complications table.

SeqNo: 4190

Long Name:	Complications Link to Operations Table
Short Name:	OperationID
Database Table Name:	Complications
Data Source:	Automatic
Format:	Text
Definition:	An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. This field is the foreign key that links the Complications record with the associated record in the Operations table.

SeqNo: 4200

Long Name:	Complication
Short Name:	Complication
Database Table Name:	Complications
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Assign complication to the operation that is most closely associated with the complication. A complication is an event or occurrence that is associated with a disease or a healthcare intervention, is a departure from the desired course of events, and may cause, or be associated with, suboptimal outcome. A complication does not necessarily represent a breech in the standard of care that constitutes medical negligence or medical malpractice. An operative or procedural complication is any complication, regardless of cause, occurring (1) within 30 days after surgery or intervention in or out of the hospital, or (2) after 30 days during the same hospitalization subsequent to the operation or intervention. Operative and procedural complications include both intraoperative/intraprocedural complications and postoperative/postprocedural complications in this time interval. An adverse event is a complication that is associated with a healthcare intervention and is associated with suboptimal outcome. Adverse events represent a subset of complications. Not all medical errors result in an adverse event; the administration of an incorrect dose of a medication is a medical error, but it does not always result in an adverse event. Similarly, not all adverse events are the result of medical error. A child may develop pneumonia after an atrial septal defect repair despite intra- and peri-operative management that is free of error. Complications of the underlying disease state, which are not related to a medical intervention, are not adverse events. For example, a patient who presents for medical care with metastatic lung cancer has already developed a complication (Metastatic spread) of the primary lung cancer without any healthcare intervention. Furthermore, complications not associated with suboptimal outcome or harm are not adverse events and are known as no harm events. The patient who receives an incorrect dose of a medication without harm has experienced a no harm event, but not an adverse event.

12/2015: If a patient has Pulmonary Hypertension preoperatively, should this still be coded as a complication if it is present post op as well? **Call it a complication if series of events happen, if there is a clinical or significant change in patient's condition.**
February 2016: If a post-op patient is extubated and re-intubated multiple times due to respiratory failure, but never for 7 consecutive days, do you code complication 150? Is it 7 days consecutively or 7 days cumulatively? **Consecutively**
February 2016: if a patient has surgery is extubated after several days, and then 3 weeks later the patient requires reintubation and eventual trach, would that be considered a post-op complication for the cardiac surgery? **Yes**
February 2016: If a patient requires a tracheostomy and it is discussed and planned 1-2 days prior to the trach being performed, would that still be considered an "unplanned non-cardiac reoperation during the postoperative time period" or would it be considered planned? **code an unplanned non-cardiac reoperation during the post-operative time period. While there is pre-surgical planning for the trach but it is an unplanned non-cardiac reoperation during this admission.**
April 2016: Please clarify the difference between "Thrombus, Central Vein" and "Systemic Vein Obstruction" - we can for see many situations with overlap - with the rare exception of a systemic vein that is occluded by something else, those will mostly be due to thrombus. Doesn't seem like a femoral vein occlusion, for example, should get 2 complications. **Complications aren't "added up"; a number of complications do overlap, pick what best fits the situation.**
Systemic Vein Obstruction [120] is an option for Complication, as defined: "Clinically significant stenosis or obstruction of any major systemic vein (e.g., superior vena cava, inferior vena cava, femoral veins, internal jugular veins, etc.). A clinically significant event or condition is an event or condition that necessitates a change in treatment."

Complications related to thrombus/thrombosis/thromboembolism:

1) **intracardiac thrombus – a mass of platelets, fibrin, other blood elements (and potentially additional matter) located at least partially within one or more of the four chambers of the heart (may extend to or from a great vein or artery)**

2) **central vein thrombus – a mass of platelets, fibrin, other blood elements (and potentially additional matter) located in any of the major veins of the body within the space shared with the thoracic and abdominal organs**

3) **peripheral deep vein thrombus - a mass of platelets, fibrin, other blood elements (and potentially additional matter) located in any of the deep veins of the extremities (e.g. popliteal, femoral, cephalic, brachial, axillary, etc.) or the extra-thoracic portion of the internal jugular vein**

4) **systemic-to-pulmonary shunt thrombosis - a mass of platelets, fibrin, other blood elements (and potentially additional matter) occupying the lumen of as systemic-to-pulmonary artery shunt – may obstructive, occlusive, or neither.**

5) **pulmonary artery thrombosis/thromboembolism - a mass of platelets, fibrin, other blood elements (and potentially additional matter) located at least partially within the main pulmonary trunk, right or left pulmonary artery, or their respective branches. The thrombus may have**

developed in this location (in situ) or may have embolized from another point of origin and lodged within the pulmonary arteries.

April 2016: Is an unplanned sternal wound revision and closure considered an unplanned cardiac reoperation, or unplanned non-cardiac reoperation? **Cardiac Reoperation**
April 2016: How would we code a surgery for abdominal pacemaker pocket hematoma evacuation? In OR, pocket reopened, cleaned, etc. Cardiac or non-cardiac reoperation? Bleeding requiring reoperation? It was bleeding issue, he had to open pocket and clean up, stop oozing, etc. **Bleeding, Cardiac Reoperation**
Part two to this question: If hematoma develops and patient needs reop for bleeding, is that coded as bleeding requiring reop only? Or should there also be a second code for the hematoma ("other")? **Can use 'other', if desired.**
April 2016: I have a question about listing complications for a patient who has had multiple procedures during one hospitalization. An example (not a real patient):
1/1/2016 Norwood procedure, 1/3/2016 Delayed sternal closure, 1/7/2016 Drainage of pericardial effusion, 1/20/2016 Extubtion, 1/22/2016 Reintubation. So the complications would be ventilation longer than 7 days, reintubation, pericardial effusion and unexpected cardiac operation. I have been listing the long ventilation and reintubation for all operations, but the pericardial effusion and unexpected operation for the index operation. Do you know if I should be doing this differently? **No. Don't have to code the re-intubation.**
May 2016: Patient had several STS complications while on ECMO, prior to the 3rd surgery of the admission, which was CPB. My understanding is that all complications will then be attributed to the CPB surgery. Is this correct? If so how do we handle this at our institution? 1st surgery of admission - ECMO cannulation (no other procedures done within the case) 2nd surgery of admission - ECMO repositioning (no other procedures done within the case) 3rd surgery of admission - Tricuspid valvuloplasty (CPB) **All complications regardless of their timing of occurrence will be attributed to the index procedure. Complications from operations that occur prior to the index operation can be included as preoperative factors, where applicable, but should not be recorded in the complications section of those procedures.**
May 2016: For complication #200 "pleural effusion, requiring drainage", does this only get indicated when a patient is given a new chest tube specifically for pleural drainage? What if a patient comes out of the OR with a chest tube and develops a pleural effusion that drains for 8 days, does that need to be indicated if it's the original chest tube the patient came out of the OR with? **This is not a complication. Only include complication "Pleural effusion, requiring drainage" if a new chest tube/drainage procedure was performed. Do not include this complication for an indwelling chest tube or persistent chest tube drainage.**
July 2016: When a patient's chest is left open post operatively, do further surgical interventions such as mediastinal exploration, removal of clot or re-do of the repair count as an unplanned return to surgery? Our surgeon is telling us that if the chest is open, further surgical procedures do not count as unplanned return to surgery. **If the sternum is left open at the time of surgery (either sternum left open planned, or sternum left open unplanned), then the first instance of delayed sternal closure is not considered an unplanned surgical intervention. All of the other procedures listed as examples above would be considered unplanned re-interventions.**
August 2016: vocal cord dysfunction: patient has been diagnosed with Papilloma virus. Would this still be considered a complication? **If vocal cord dysfunction is present it is a complication, regardless of the cause. You can code as 'other'.**
October 2016: If a patient is put on ECMO as their only procedure, should "postoperative mechanical circulatory support" be coded as a complication? **If ECMO is the primary procedure then don't code it as a complication.**
November 2016: During a redo sternotomy the surgeon was taking down adhesions on/near the heart using a bovie device. The patient sustained a VF arrest and was quickly defibrillated. The surgeon feels that this

episode of VF was due to the electrocautery device disrupting the electrical circuit of the heart and was not an entirely unexpected event. Rather than a complication of surgery, he sees this more as one of those things that can happen and is then quickly rectified. Should this be included as a complication under "Unexpected cardiac arrest during or following procedure" since the surgeon feels it was something that was known to happen? **Yes, you should code this**.

December 2016: If a child comes in in complete heart block from a prior surgery for a pacemaker generator change, I do not code arrhythmia requiring permanent pacemaker for this surgery correct? It was already coded at his initial repair which resulted in CHB. **This is not a complication.**

March 2017: Do I code these complications related to underlying disease process that occur after index procedure as complications? Or do we only code complications related to the procedure? i.e. one patient had PDA closure without complications from that, but also has Cri-du-Chat syndrome and is still in the hospital r/t Cri-Du-Chat. Has been on a vent. Another patient was severely premature and has complications related to the prematurity, not the PDA closure. **Record all postop events that are listed in the complications list regardless of any other concurrent disease processes. If the patient remained ventilated for greater than 7 days postoperatively for any reason, this complication should be selected.**

April 2017: Would a mediastinal exploration for tamponade be coded as a reop for bleeding, or just an unplanned cardiac reop? **Re-op for bleeding.**

May 2017: A patient goes to OR and postoperatively has an ultrasound revealing bilateral diaphragmatic movement. Unfortunately, the child had a prolonged stay related to co-morbidities and developed critical illness myopathy resulting in diaphragm paresis. Should this be included in the complications/major complication category? **Yes as the complications are encompassing of all post- operative events. It does not matter what caused the diaphragm paresis but the paresis did occur and should be captured.**

June 2017: Should infections other than sepsis or wound infections be captured under "Other complication". Patient had a nasal swab right before surgery on 3/23 which grew enterobacter & h. flu. He got his usual pre-op and post-op antibiotics x 48 hours. On 5/25, a respiratory culture was done and grew enterobacter and 7 days of IV antibiotics were given. Would this count as post-op complication? Or would it not count at all because of the nasal swab pre-op growing enterobacter? **Currently there is no way to capture an infection outside of wound infection or pneumonia. There is no requirement to include 'other' complications but you are able to for local use if desired.**

June 2017: I would like a clarification on the time period of complications. On the monthly calls, I hear people say if there is more than one surgery in a hospitalization, they put all the complications on the very first index procedure and then put "none" for any other surgeries. But looking at the definition "(1) within 30 days after surgery or intervention in or out of the hospital, or (2) after 30 days during the same hospitalization subsequent to the operation or intervention". For example, in one hospitalization, if we had a PDA ligation & atrial septostomy on CPB in October then a B-T shunt in December followed by a trach two weeks later, would the trach go on the PDA case or the B-T shunt? **You can attribute the complications to the surgery it is most likely associated with, however upon analysis, DCRI will attribute all of the complications to the index operation.**

June 2017: For complications that occur outside of the hospital but within 30 days of the patient's index operation, do we code all that occur within the 30 days? **Yes** Or, if the patient is readmitted, do we capture all complications that occur within the subsequent admission regardless of timing? **All complications are captured for the entire hospital length of stay or if discharged, through post-operative day 30.**

July 2017: If a patient has vocal cord paralysis, but it is due to a transesophogeal fistula repair done by general surgery, should this be recorded as a post op complication, as it was not due to the cardiac surgery? **Yes, all complications should be captured regardless of the cause.**

October 2017: Patient had repair of unbalanced left dominant atrioventricular septal defect and ligation of patent arterial duct, and subsequently developed complete heart block requiring insertion of a permanent

pacemaker. We would code a complication of arrhythmia necessitating permanent pacemaker and unplanned cardiac reoperation, correct? **Yes, capture all complications/events that occurred in the intraoperative/postoperative time period even if there is overlap. If the pacemaker was inserted in the operating room, select both complications. If the pacemaker was inserted in the cath lab, select only permanent pacemaker.**

November 2017: If a patient is placed on ECMO after the index surgery, does the ECMO count as an unplanned cardiac re-op? **No, include the complication of post-operative mechanical circulatory support only as ECMO**

November 2017: If a patient is having a Hybrid procedure "Stage 1", application of RPA and LPA bands in the cath lab along with a cath procedure. During the procedure the patient arrested and received CPR. Would this complication be coded as' unexpected cardiac arrest' or 'complication of cardiac cath' procedure? **Unexpected cardiac arrest should be coded as this was a cardiac surgery procedure.**

December 2017: If a patient is given magnesium or potassium to treat an arrhythmia do you record complication code 72? **No, while electrolytes may correct an arrhythmia, they are being used primarily to correct an electrolyte imbalance.**

December 2017: If you have to use a pacemaker for a slow sinus rhythm for a few hours post-operation, would you code complication code 75? And does duration of pacing have any impact on this decision? **Yes, code temporary pacing anytime temporary pacing is used in the operative or post-operative time frame regardless of the duration of the temporary pacing.**

December 2017: We have a surgeon that routinely uses peritoneal drains as a preventive measure for fluid removal and balance post operatively. Dialysate is sometimes used for a short period of time and early in the post op period. We are unable to meet the definition of renal failure re: oliguria because it hasn't been 24 hrs. Should this be coded as renal failure, requiring temporary dialysis? **PD drains used only to drain fluid is not dialysis, nor renal failure. The question becomes, with those where dialysate is used, what is the creatinine level? If there is a rise in creatinine >1.5 times the upper limits of normal for age, then the definition of renal failure is met regardless of the urine output.**

December 2017: When is it appropriate to indicate complications of arrhythmias for patient with pre-surgical arrhythmias and/or pacemakers? Here are 4 examples. Do any of them get coded with a complication?
1) a patient with a pacemaker went into SVT and her ppm was synchronized with cardioversion. **Yes**
2) a patient with a pacemaker requiring temporary pacing. **Need more information, if this is a permanent pacemaker and required some intervention with a temporary pacer/wires, yes**
3) a patient is on anti-arrhythmics prior to surgery and needs additional dosages or meds post-op **Yes**
4) a patient is on beta-blockers for an arrhythmia that are discontinued pre-op and has "rebound arrhythmia" until they are restarted. **Yes**

February 2018: A ventilated patient required a bronchoscopy post-operatively. This was done at the bedside by the pulmonary specialist. Would this be considered an unplanned non-cardiac reoperation during the postoperative or post-procedural period? **No, a bronchoscopy is not an operation or to be included as a reoperation.**

February 2018: Patient was returned to the NICU service 2 weeks after CT Surgery. Do we continue to capture complications not related to the cardiac surgery and those incurred during surgeries after that date that involved general surgery and general peds anesthesia? **Yes, all complications are captured for the entire length of hospital stay.**

February 2018: Intraoperatively: patient develops PEA for which compressions are initiated, patient then receives mx doses of epi, bicarb and calcium; rhythm progressed from PEA to asystole then brief period of sinus rhythm for which they were paced briefly then rhythm progressed to vfib for which they were defibrillated 3 times. Would we count the following complications: Unexpected cardiac arrest; arrhythmia requiring temporary

pacing; arrhythmia requiring drug therapy; arrhythmia requiring defibrillation? **Yes, include all intraoperative complications**
March 2018: A patient is initially coded for the postoperative complication of 'Paralyzed diaphragm (possible phrenic nerve injury)'. The diaphragm paralysis resolves within this admission. Would you still code it as a complication? **If the patient meets the definition of diaphragm paralysis, code the complication regardless of the resolution of the complication during the hospitalization.**
April 2018: I have a patient that had his heart surgery and then a few days later they were unable to get IV access. The surgeon took him to the OR to put in a Broviac. Would this fall under unplanned non-cardiac reoperation during the postoperative or post-procedural time period? If so, why? **Line placements are not included as non-cardiac reoperations. Centers have variability in what lines are placed and where they are placed.**
April 2018: This specifically references complication 80, cardiac dysfunction resulting in low cardiac output. A child returns from OR around 1530 with HR120's, SBP 90's-100's, cerebral/somatic oximetry 80's/90. pt had adequate urine output. Pt. was on dopamine 2.1 mcg/kg/min & milrinone 0.3 mcg/kg/hr. During the night, the patient's cerebral and somatic oximetry begin to drop in to the 60's and 70's. The urine output drops to <1ml/kg/hr. The child has hypotensive episode with SBP into the 50's and 60's. The dopamine drip is increased to a max of 4.8mcg/kg/hr. the child receives boluses of 5% albumin to total 18gms. Lasix is also given to ^ urine output. This started approx. 2200 11/14. The dopamine was able to weaned down to baseline level around 1100 on 11/15/2017 and was able to be discontinued 11/16. The milrinone was discontinued 11/18. Would this scenario meet the criteria for "cardiac dysfunction resulting in low cardiac output"? Since the milrinone remained on until 11/18, does that meet the criteria for inotrope dependence in complication #384 "cardiac failure"? **Yes, does this meet the criteria for cardiac dysfunction resulting in low cardiac output per the current specs, but not cardiac failure. These definitions will be updated in the upcoming data spec upgrade.**

May 2018: Talking about definitions with another data manger this scenario unfolded: If a patient has an unexpected cardiac arrest, which you code as a complication, #30; if during the course of the arrest you
1. Give meds to treat the arrhythmia do you also code #72 arrhythmia requiring drug treatment? **Yes**
2. Cardiovert or defibrillate the patient, do you also code #73 arrhythmia requiring electrical cardioversion or defibrillation? **Yes. The post-operative complications often overlap and represent the patient's post-operative course. Include all complications that occurred including the defibrillation, cardioversion, and medications for arrhythmia and the cardiac arrest if those all occurred in the post-operative setting.**
June 2018: A baby had an arterial switch operation. She was recovering and had been extubated. About 3 weeks post-op she developed septic shock likely secondary to a line infection. She was emergently placed on VA ECMO--her mid-sternal incision and sternum were re-opened and she was cannulated in the aorta and the RA. Would this be considered and unplanned cardiac surgery or an unplanned non-cardiac surgery or would I just capture it as the complication of post-op mechanical support required? Also, are all ECMO cannulation surgeries considered to be emergent/salvage in nature or just emergent?
Coding it as a complication of post-op mechanical support, but does not need to be captured as an unplanned operation. Coding the case as emergent or salvage depends on the "urgency" of the procedure. If the patient is receiving CPR while cannulating, the case is salvage. If not, it would be emergent. Please refer to the definitions for status (sequence 1055) for more detail.
June 2018: Hospital A does an index procedure, then directly transfers the patient to another acute care hospital (Hospital B). At Hospital B, although greater than 30 days postop, the patient needs an intervention cath, chest tube to drain a pleural effusion, and a pacemaker. Should the complications that occur at Hospital B be entered by Hospital A? Does the answer change if Hospital B does an index procedure during that same hospitalization?

Yes, Hospital A should include all complications that occur in Hospital B regardless of whether an index procedure is done at that hospital. The complications should be collected until the patient dies or is discharged home. Mortality would also be captured until that time.

July 2018: Patient undergoes a conduit reoperation and POD 6, noted to have bleeding. Pt was brought back to the OR for mediastinal exploration for bleeding. During that time, they also revised the RV-PA conduit. For the reop on POD 6, do I assign both 'Reop for Bleeding' and 'Unplanned cardiac reop' since they revised the RV-PA conduit as well as explored for bleeding? **Yes, capture all events that occur in the post-operative period.**

August 2018: I have a patient that had a redo mitral valve replacement and tricuspid valve annuloplasty w/o ring insertion on 5/31/2018. Her first night in PICU she was using the temporary pacing and an atrial electrogram showed AV dissociation. Later she had a first degree AV block and junctional rhythm.
On 6/13/18 before she was discharged home she had a permanent pacemaker implanted. I will capture this as #74 and #75 for complications, but do I have to enter a whole new case in STS for the pacemaker? **Yes, if the cardiac surgeon placed the pacemaker it should be captured. It will be included as a No-CPB Cardiovascular operation.**

August 2018: Should all arrhythmias during routine intra-op dissection and cannulation and decannulation or manipulation that requiring cardioversion, defibrillation, medications and/or cardiac stimulation be collected as complications? Here are a couple examples: In the OR the patient fibrillated coming off bypass requiring defibrillation and Lidocaine. Does this count as a complication: Arrhythmia requiring cardioversion/defibrillation? In the OR the patient had 2 episodes of ventricular fibrillation (during dissection and onset of CPB). Does this count as a complication: Arrhythmia requiring cardioversion/defibrillation? Hybrid Stage I procedure (bilateral pulmonary artery bands and PDA stent placement) and balloon atrial septostomy on 10/27/2017. In the OR in addition to surgical procedure, patient had balloon atrial septostomy with multiple episodes of SVT requiring Adenosine. Does this count as arrhythmia requiring drug therapy? **Yes, all arrhythmias requiring intervention in the OR should be included as complications.**

August 2018: During surgery, a patient experienced two episodes of VF as described below. Would either of these scenarios warrant selecting Complication 30 - Unexpected Cardiac arrest during or following procedure and/or Complication 73 - Arrhythmia requiring electrical cardioversion or defibrillation? "Once the VSD was closed, the cross clamp was removed because there was some evidence of diminished urine output...the clamp might have been compromising DAo flow. The patient initially fibrillated but converted with 10 joules but returned to VF on bypass during part of the procedure..." (This episode occurred immediately after the clamp came off and while the patient was still on CPB.) "Once the heart was closed she was given a total of 50 mg/kg magnesium and lidocaine. She was electrocardioverted with 10 joules but returned to VF then spontaneously converted to NSR before another shock. She remained in NSR subsequently..." (This episode also occurred while the patient was still on CPB and preparing to be warmed and weaned from CPB.) **Both scenarios represent the complication arrhythmia requiring electrical cardioversion or defibrillation.**

September 2018: A patient had repair of pulmonary atresia with VSD. He returned from OR extubated. About 6 hours post-op the patient developed JET with a HR in the 180-200 range. He required reintubation with sedation, paralytics and cooling to treat this. His blood pressure was also low with a marginal urine output. He required up-titration of his epinephrine drip, vasopressin drip initiation and volume expanders. He remained on vasopressin for 3 days and epi for 5 days. Since this instability seems to be related to the JET, would this still be considered 'cardiac dysfunction resulting in low cardiac output'? **Yes, code cardiac dysfunction resulting in low cardiac output. All applicable complications should be coded even if they overlap one another.**

September 2018: In addition to coding "vocal cord dysfunction", would you count "suspension microlaryngoscopy with injection of left vocal cord" as an unplanned non-cardiac reoperation? **Yes, include as an unplanned non-cardiac reoperation.**

16. Discharge/Readmission

SeqNo: 4220
Long Name: Date of Hospital Discharge
Short Name: HospDischDt
Database Table Name: Operations
Data Source: User
Format: Date - mm/dd/yyyy
Definition: Indicate the date that the patient is discharged from the hospital where the surgery took place. In rare instances, the "Date of Hospital Discharge" differs from the "Date of Database Discharge". In situations where the patient is discharged to another acute care facility or to a chronic care facility, the "Date of Hospital Discharge" is the date the patient is transferred from the hospital where the surgery took place to another facility. This field is intended to capture the total length of stay in your hospital regardless of the medical service managing the patient.

SeqNo: 4230
Long Name: Mortality Status At Hospital Discharge
Short Name: MtHospDisStat
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was Alive or Dead at date and time of "Date of Hospital Discharge" for this operation.

May 2017: If a newborn is delivered at hospital A and has cardiac surgery then transferred to hospital B and has cardiac surgery and then transferred back to hospital A months later and subsequently dies at hospital A. Both Hospital A and Hospital B would code that patient as a discharge mortality. The patient was never home from the beginning. This issue is not addressed in the Rules to determine the EACTS-STS discharge date. And thus both hospitals would count the case as a mortality? **Yes, both programs would have a discharge mortality and operative mortality.**

July 2017: Baby who went to the cath lab for pulmonary valve dilation and had a right ventricle perforation and who needed to go to the OR emergently for decompensation. Perforation repaired on bypass due to its proximity to coronary artery due to severity of right ventricle hypertrophy, the patient had a pulmonary valvotomy. If this patient does not make it, how do we code this procedure – we feel it should be a cath lab death and not necessarily a cardiac surgery death, due to the circumstances. **All cases are coded as they occur and this would count as an operative death.**

SeqNo: 4240
Long Name: Discharge Location
Short Name: DisLoctn
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the location to where the patient was discharged at the Date of Hospital Discharge.

Parent Long Name: Mortality Status At Hospital Discharge
Parent Short Name: MtHospDisStat
Parent Value(s): = "Alive"

SeqNo: 4245
Long Name: VAD-Discharge Status
Short Name: VADDiscS
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient had a VAD in place at discharge from the hospital.

SeqNo: 4250
Long Name: Date of Database Discharge
Short Name: DBDischDt
Database Table Name: Operations
Data Source: User
Format: Date - mm/dd/yyyy
Definition: Indicate the "Date of Database Discharge". The "Date of Database Discharge" is defined as a date that is determined by three rules (presented below as Rule A, Rule B, and Rule C), which specify how to complete the field "Date of Database Discharge".

[Rule A]: If a patient was admitted from their home, they must be either dead or discharged to home prior to completing the field "Date of Database Discharge". Their "Date of Database Discharge" is the date they are discharged to home or their date of mortality. If a patient was admitted from their home, the field "Date of Database Discharge" cannot be completed if the patient is transferred to another acute care facility or chronic care facility until they are either dead or discharged to home. However, if this patient survives in a chronic care facility for 6 postoperative months (i.e., 183 postoperative days in the chronic care facility), the patient can then be assigned a "Date of Database Discharge" that is the date when the patient is in the chronic care facility for 183 days. (Some institutions may not have a mechanism that allows transfer to a chronic care facility and instead utilizes their own institution as the chronic care facility. If an institution does not utilize a chronic care facility and instead

keeps these chronic patients in-house, this institution can apply to this Rule [Rule A] whenever one of their patients survives for 6 postoperative months (i.e., 183 postoperative days) on "chronic care status" within their institution.)

[Rule B]: If a patient was admitted from (i.e., transferred from) a chronic care facility where they chronically reside, they must be either dead or discharged either to home or to a chronic care facility prior to completing the field "Date of Database Discharge". Their "Date of Database Discharge" is the date they are discharged either to home or to a chronic care facility, or their date of mortality.

[Rule C]: If a patient was admitted from (i.e., transferred from) another acute care facility, Rule A as previously stated applies if they lived at home prior to their admission to the transferring acute care facility. If a patient was transferred from another acute care facility, Rule B as previously stated applies if they lived in a chronic care facility prior to their admission to the transferring acute care facility.

These three rules are consistent with previously published rules defining Operative Mortality [1] and Operative Morbidity [2] in the following published manuscripts [1, 2].
[1]. Jacobs JP, Mavroudis C, Jacobs ML, Maruszewski B, Tchervenkov CI, Lacour-Gayet FG, Clarke DR, Yeh T, Walters HL 3rd, Kurosawa H, Stellin G, Ebels T, Elliott MJ. What is Operative Mortality? Defining Death in a Surgical Registry Database: A Report from the STS Congenital Database Task Force and the Joint EACTS-STS Congenital Database Committee. The Annals of Thoracic Surgery, 81(5):1937-41, May 2006.
[2].Jacobs JP, Jacobs ML, Mavroudis C, Maruszewski B, Tchervenkov CI, Lacour-Gayet FG, Clarke DR, Yeh T, Walters HL 3rd, Kurosawa H, Stellin G, Ebels T, Elliott MJ, Vener DF, Barach P, Benavidez OJ, Bacha EA.. What is Operative Morbidity? Defining Complications in a Surgical Registry Database: A Report from the STS Congenital Database Task Force and the Joint EACTS-STS Congenital Database

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April 2016: Patient has been a continuous patient since their first OR since 06Oct2014 and they have had 7 surgeries total with the last one being in April 2015, would I still enter the 07Apr2015 as the discharge date which would be 183 days even though they had a surgery on the 21Apr2015? How long can patients remain "open" without being submitted for harvest when they don't have a discharge date? **The 183 days is only for extended care.**

July 2016: We had a patient that was admitted on 07/21/15 and had a Ross-Konno done. She had a long complicated hospital stay that ended in trach/ventilator dependent status and transfer to a long term care facility on 01/06/16. She was then readmitted on 01/10/16 for 1 day and sent back to LTC 01/11/16; readmitted 01/29/16 for 1 day and sent back 01/30/16 to LTC; and finally readmitted 02/06/16 to us and she expired yesterday in our facility. Throughout all of the readmissions there were no more cardiac procedures done. I believe that her database D/C date should be 07/11/16, but my surgeons feel that her database D/C date should be at 183 days post-op and that this should not be an operative mortality. **Database discharge date is 7_11_2016 & it is an operative mortality**

June 2017: Patient has CPB cardiovascular procedure on 12/20/16 is discharged home on 4/28/2017, but readmitted to the hospital stepdown unit w/in 12 hours of hospital discharge.
Question 1 - Would hospital discharge date and database discharge date be 4/28? **Yes**

Question 2 - If patient has complications during readmission would these be attributed to his 12/20/16 CPB cardiovascular procedure? **No, as the complications would only be collected to the 04/28/2017 date. There would be a readmission to the hospital within 30 days.**

January 2018: If a patient is admitted to a chronic care type unit within our hospital system (we do not routinely discharge to outside chronic care facilities) and stays for greater than 183 days I understand that we can "discharge" them from the database. Because they were not discharged from our hospital but transferred to this unit, we do not have a hospital discharge date. Do we also enter this same date as the Hosp Disch Dt (4220)? **In this situation, the day the patient transferred from acute to chronic care is the hospital discharge date. The database discharge date is then 183 days from the date of transfer to the chronic care unit.**

February 2018: Regarding the 'new' episode of care definition: If a patient is admitted from home to Hospital A and has a CPB/No CPB cardiovascular operation at Hospital A, then is transferred to Hospital B and has a CPB/No CPB cardiovascular operation then they are database discharged as 'dead'. Will they have an indexed operation at hospital A and an indexed operation at hospital B, as well as a mortality for both hospitals? **Yes, both hospitals get the mortality.**

February 2018: What is the date of database discharge for a patient that was born at our facility; had surgery out of our facility; and was then transferred to another acute care facility and is still hospitalized there after 1.5 years? The patient is about 21 months old and has been hospitalized since birth. Can we do a database discharge for this patient based on surviving greater that 183 postoperative days in "chronic care status"? If an institution does not utilize a chronic care facility and instead keeps these chronic patients in-house, this institution can apply to this Rule [Rule A] whenever one of their patients survives for 6 postoperative months (i.e., 183 postoperative days) on “chronic care status” within their institution.) **Verify that the patient has survived on chronic care status for 183 days before you can complete the database discharge fields. If the patient is still ‘acute’ cannot discharge the patient until patient has survived on chronic case status for 183 days.**

June 2018: The data definition for database discharge date says that if an institution maintains care of chronic patients in-house, and if they don't have a rehab facility that will take the child, and if that patient survives in-house to 183 days, the data of database discharge can be entered into the vendor software as the date of that 183rd day. Does that include patients that require continued PICU or PICU step down care? Can any patient that remains in the hospital then for 183 days be consider "in-house chronic care"? **PICU or PICU step down is not considered a chronic care unit or rehab floor. Patients remaining in the PICU or PICU step down or on an acute care floor for 183 days are not considered to be in chronic care. See above definition. Chronic care and acute rehab are not the same entity. To be considered a chronic care unit the floor should serve as chronic care for all patients on that unit, not just one or two patients.**

September 2018: Is there a provision for patients to be database discharged who are residing in chronic care facilities for social reasons (ie, clinically cleared for discharge to home)? Can we database discharge them when they are medically cleared for discharge to home but physically remain in chronic facility? **No, per the data specifications, the patient must discharge home or expire before the database discharge date can be completed.**

SeqNo: 4260
Long Name: Mortality Status At Database Discharge
Short Name: MtDBDisStat
Database Table Name: Operations
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was Alive or Dead at the date and time of "Date of Database Discharge" for this operation.

SeqNo: 4270
Long Name: Readmission Within 30 Days
Short Name: Readmit30
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was readmitted within thirty days of discharge.

Parent Long Name: Mortality Status At Hospital Discharge
Parent Short Name: MtHospDisStat
Parent Value(s): = "Alive"

12/2015: If a patient is re-admitted within the 30-day period for less than 24 hours (e.g., ER, feeding device mal-positioned, cath lab procedure, etc.) and discharged home, is this coded as a re-admittance**? If the patient is actually admitted, yes; if only observation status then no. If did interventional cath lab procedure – add this clarification.**
May 2018: Should patients who are not discharged home but rather to another acute/chronic care facility (which is not their permanent residence) and then return to my hospital be captured here? In other words, if there is not a database discharge date, is it possible to be "readmitted"? **The hospital discharge date and database discharge date are separate data fields with distinct definitions. Therefore, the patient can have another hospital readmission without a previous database discharge date. If the patient was readmitted to any acute care facility/hospital within 30 days of their hospital discharge date, answer the question yes and list the date and the reason for readmission.**

SeqNo: 4280
Long Name: Readmission Date
Short Name: ReadmitDt
Database Table Name: Operations
Data Source: User
Format: Date - mm/dd/yyyy
Definition: Indicate the date on which the patient was readmitted.

Parent Long Name: Readmission Within 30 Days
Parent Short Name: Readmit30
Parent Value(s): = "Yes"

SeqNo: 4290
Long Name: Primary Readmission Reason
Short Name: ReadmitRsn
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the primary reason for readmission.

Whenever possible, use the most appropriate specific organ system and/or lesion based choice from the list to document the reason for admission.

Please only use one of the three choices beginning with the word “Other”’ when no other choice is appropriate.

If the readmission is for the patient to undergo a procedure related to the index operation (the first operation of the given hospitalization that has an Operation Type of "CPB" or "No CPB Cardiovascular"), please document the cause of this readmission to be assigned to the specific organ system and/or lesion based choice if possible. If no specific organ system and/or lesion based choice is appropriate and the readmission is for the patient to undergo a procedure related to the index operation, please choose “Other Cardiovascular Complication” if the planned procedure is cardiac, and “Other - Readmission related to this index operation" if the planned procedure is noncardiac.

Parent Long Name: Readmission Within 30 Days
Parent Short Name: Readmit30
Parent Value(s): = "Yes"

SeqNo: 4300
Long Name: Mortality - 30-Day Status
Short Name: Mt30Stat
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was alive or dead on the 30th day post-surgical procedure whether in hospital or not.

SeqNo: 4310
Long Name: Mortality - 30-Day Status - Method Of Verification
Short Name: Mt30StatMeth
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the primary method used to verify the patient's 30-day mortality status.

SeqNo: 4330

Long Name:	Mortality - Operative Death
Short Name:	MtOpD
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Operative Mortality includes: (1) all deaths, regardless of cause, occurring during the hospitalization in which the operation was performed, even if after 30 days (including patients transferred to other acute care facilities); and (2) all deaths, regardless of cause, occurring after discharge from the hospital, but before the end of the thirtieth postoperative day.

12/2015: : If a patient does not have a CPB or a No CPB case, and only has an operation op type "thoracic" and the patient dies, should the Mortality Case field be marked yes or no? Based on the STS definition, it sounds like this should only be marked yes for cases that are CPB or no CPB but I am not completely clear.
Should be marked yes for local use, but it is not analyzed. (harvested, not analyzed)

February 2016: A premature neonate with a birth weight of 630gms has a PDA closure done on day of life 110 and has a weight of 3.3kg at the time of surgery. Will the child be excluded from our center's mortality calculation based on the birth weight or included in the mortality calculation based on weight at time of surgery? **Patient would be included in the mortality analysis based on the weight at the time of surgery and not birth weight.**

February 2017: We had a patient with HLHS that we performed surgery for bi-lateral PA bands. The patient was transferred to another hospital for the Stg I Norwood procedure. The patient had numerous issues that resulted in the recommendation of withdrawal of support. The patient was transferred back to our hospital for w/d of support and the patient expired. Would this mortality be coded to our hospital? **Yes it would.**

September 2017: Patient was born at our facility and had initial cardiac surgery with CPB in neonatal period. Had revision of initial repair one month later with ECMO support. Successfully weaned from ECMO. Patient was born with multiple other anomalies and required GT and trach two months after the index operation. Seven months after the index operation, patient was transferred to another acute care facility for a complex airway procedure that we do not perform in our facility. While at the other facility, patient underwent cardiac catheterization and further cardiac surgery with CPB. Patient was then transferred back to our facility two months later and then was transferred to rehab facility one month later (care of chronic trach/vent since family was not equipped to care for patient at home). Patient was readmitted to our facility four months later for airway bleeding event leading to cardiac arrest and the need for ECMO. Head CT showed findings consistent with hypoxic brain injury and support was withdrawn. Question about where/if operative mortality should be assigned. Index case was done at our facility, but patient received additional cardiac surgery outside of our facility. Death was related to the airway anomaly and occurred 15 months after the index case. Please help us code this correctly. **Patient did not D/C to home following cardiac repair from either center. Both centers have admissions with index operations thus both centers would have an operative mortality.**

September 2017: For a 4 mo infant status post Norwood who is not discharged from the hospital, and dies s/p BDG how should the Norwood mortality be coded? **The Norwood is the index operation of the admission and would be the case the mortality is attributed to.**

October 2017: A child less than 24 hours old received a pacemaker. The same patient later had an ECMO run and PA banding. The Pacemaker was the first surgery, this child ended up dying before 30 days of life. Will this mortality be excluded from our Risk Adjusted Mortality because the pacemaker was the index procedure

and was inserted at less than 24 hours of life and died before 30 days of life? **The index operation is the pacemaker insertion. Because the patient is a neonate at the time of the index operation, the case would not be analyzed in the mortality analysis. The timing of the death (before or after 30 days) during of the admission does not impact the analysis or assignment of death**.

January 2018: A neonate with Shone's Complex had an aortic arch repair on the 6th day of life. It was discovered after the surgery that the child had "Alveolar Capillary Dysplagia with misalignment of pulmonary veins." This diagnosis carries a 100% mortality rate. Not surprising the child died a few days after surgery. Because of the child's poor prognosis given his alveolar disease, this surgery was somewhat palliative in nature. Will this be counted in my hospitals adjusted risk mortality calculation? In the past my surgeon has done other palliative surgeries and it was determined by STS to not affect the adjusted risk mortality calculation. If the above mentioned case is determined to not be included as a mortality included in the adjusted risk mortality calculation, how should I go about coding this? **This is a mortality that will be included in the risk adjusted mortality calculation. We are not aware of other 'palliative' procedures that do not count in the risk model other than those without STAT scores, operation types that are not CPB or No CPB Cardiovascular, or exceptions of PDA ligation in patients.**

SeqNo: 4331

Long Name:	Eligibility For CHSS Study
Short Name:	CHSSElig
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate patient's eligibility for the Congenital Heart Surgeon Society (CHSS) study.

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17. Patient Process Measures

SeqNo: 4340

Long Name:	Patient's care discussed at preoperative multidisciplinary planning conference
Short Name:	CareDiscussed
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether this patient's care was discussed at a preoperative multidisciplinary planning conference to plan pediatric and congenital heart surgery cases. A preoperative multidisciplinary planning conference involves attendance by multiple members of the healthcare team, with recommended participation including but not limited to: cardiology, cardiac surgery, anesthesia, and critical care.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular" or "CPB Non-Cardiovascular"

SeqNo: 4350
Long Name: Reason why patient's care was not discussed
Short Name: CareDiscussedRsn
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the reason why the patient's case was not discussed at a preoperative multidisciplinary planning conference.

Parent Long Name: Patient's care discussed at preoperative multidisciplinary planning conference
Parent Short Name: CareDiscussed
Parent Value(s): = "No"

SeqNo: 4370
Long Name: Transesophageal Echocardiography (TEE) available for case
Short Name: TEEAvail
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether intraoperative transesophageal echocardiography (TEE) was available for this case (or epicardial echocardiography if TEE contraindicated or not informative).

Availability is defined as the presence and availability of equipment and staff to perform the study. Reporting of compliance will be as the fraction of all Cardiac Operations with availability (as opposed to use) of TEE and/or epicardial echocardiography.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular" or "CPB Non-Cardiovascular"

SeqNo: 4380
Long Name: Intraoperative transesophageal echocardiography (TEE) performance
Short Name: TEEEpicEchoPerf
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether TEE / epicardial echocardiography was performed for this case.

If available, TEE may not be performed due to surgeon preference, size of patient, not indicated, etc.

Parent Long Name: Transesophageal Echocardiography (TEE) available for case
Parent Short Name: TEEAvail
Parent Value(s): = "Yes"

SeqNo: 4400
Long Name: Preoperative antibiotic prophylaxis given
Short Name: PreopAntiProph
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a preoperative antibiotic prophylaxis was given to this patient.

Measure is satisfied for each Cardiac Operation, when there is documentation that the patient has received prophylactic antibiotic(s) within the hour immediately preceding surgical incision (two hours if receiving vancomycin). To satisfy this measure, the field named “Skin Incision Start Time” must be completed.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular" or "CPB Non-Cardiovascular"

March 2017: We only have "Yes" or "No" as options for prophylactic antibiotics within one hour (two if Vanc), but when we perform a re-operation or the patient is already on a scheduled antibiotic, is it counted against us in any way if we answer "No"? If they are on a scheduled antibiotic, should I go ahead and put the time of the last dose in seq 4700 PreopAntiProphTime even though it's more than an hour before skin incisions? **Answer 'no' and do not include the time of the antibiotic if it is outside of the 1 hour time before skin incision.**

SeqNo: 4410
Long Name: Preoperative antibiotic prophylaxis - Cephalosporin
Short Name: PreopAntiProphCeph
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the preoperative antibiotic prophylaxis included Cephalosporin.

Parent Long Name: Preoperative antibiotic prophylaxis given
Parent Short Name: PreopAntiProph
Parent Value(s): = "Yes"

SeqNo: 4420
Long Name: Preoperative antibiotic prophylaxis - Penicillin or related medication
Short Name: PreopAntiProphPen
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the preoperative antibiotic prophylaxis included penicillin or related medications (i.e., Oxacillin, Nafcillin, Ampicillin, etc.)

Parent Long Name: Preoperative antibiotic prophylaxis given
Parent Short Name: PreopAntiProph
Parent Value(s): = "Yes"

SeqNo: 4430
Long Name: Preoperative antibiotic prophylaxis - Aminoglycoside
Short Name: PreopAntiProphAmino
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the preoperative antibiotic prophylaxis included Aminoglycoside.

Parent Long Name: Preoperative antibiotic prophylaxis given
Parent Short Name: PreopAntiProph
Parent Value(s): = "Yes"

SeqNo: 4440
Long Name: Preoperative antibiotic prophylaxis - Vancomycin
Short Name: PreopAntiProphVan
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the preoperative antibiotic prophylaxis included Vancomycin.

Parent Long Name: Preoperative antibiotic prophylaxis given
Parent Short Name: PreopAntiProph
Parent Value(s): = "Yes"

SeqNo: 4450
Long Name: Preoperative antibiotic prophylaxis - Other
Short Name: PreopAntiProphOth
Database Table Name: Operations

Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the preoperative antibiotic prophylaxis included any other class of antibiotic.

Parent Long Name: Preoperative antibiotic prophylaxis given
Parent Short Name: PreopAntiProph
Parent Value(s): = "Yes"

SeqNo: 4470
Long Name: Preoperative antibiotic prophylaxis - Time started
Short Name: PreopAntiProphTime
Database Table Name: Operations
Data Source: User
Format: Time - hh:mm (24-hour clock)
Definition: Indicate the time when the antibiotic infusion started.

Parent Long Name: Preoperative antibiotic prophylaxis given
Parent Short Name: PreopAntiProph
Parent Value(s): = "Yes"

SeqNo: 4480
Long Name: Conventional preprocedure time-out.
Short Name: ConvTimeOut
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a conventional preprocedural “time-out”, which includes identification of patient, operative site, procedure, and history of any allergies, was performed.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular" or "CPB Non-Cardiovascular"

SeqNo: 4490
Long Name: Surgeon shares essential elements of operative plan
Short Name: PreProcBrief
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a pre-procedural briefing was performed wherein the surgeon shares with all members of the operating room team the essential elements of the operative

plan; including diagnosis, planned procedure, outline of essentials of anesthesia and bypass strategies, antibiotic prophylaxis, availability of blood products, anticipated or planned implants or device applications, and anticipated challenges.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular" or "CPB Non-Cardiovascular"

SeqNo: 4500
Long Name: Postprocedure debriefing
Short Name: PostProcDebrief
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a postprocedural debriefing was performed wherein the surgeon succinctly reviews with all members of the operating room team the essential elements of the operative plan, identifying both the successful components and the opportunities for improvement. This debriefing should take place prior to the patient leaving the operating room or its equivalent, and may be followed by a more in-depth dialogue involving team members at a later time. (The actual debriefing in the operating room is intentionally and importantly brief, in recognition of the fact that periods of transition may be times of instability or vulnerability for the patient.)

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular" or "CPB Non-Cardiovascular"

SeqNo: 4510
Long Name: Hand-off protocol at the time of transfer to the Intensive Care Unit
Short Name: HandoffProtocol
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a briefing and execution of a hand-off protocol (checklist) was performed at the time of transfer (arrival) to the Intensive Care Unit at the end of the operation, involving ALL of the following: the anesthesiologist, surgeon, physician staff of the Intensive Care Unit (including critical care and cardiology) and nursing.

Parent Long Name: Operation Type
Parent Short Name: OpType
Parent Value(s): = "CPB Cardiovascular", "No CPB Cardiovascular" or "CPB Non-Cardiovascular"

SeqNo: 4520

Long Name:	Hand-off protocol - Anesthesiologist
Short Name:	HandoffAnesth
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the anesthesiologist or designee attended the hand-off protocol at the time of transfer to the Intensive Care Unit at the end of the operation.
Parent Long Name:	Hand-off protocol at the time of transfer to the Intensive Care Unit
Parent Short Name:	HandoffProtocol
Parent Value(s):	= "Yes - Not all required team members present"

SeqNo: 4530

Long Name:	Hand-off protocol - Surgeon
Short Name:	HandoffSurg
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the surgeon or designee attended the hand-off protocol at the time of transfer to the Intensive Care Unit at the end of the operation.
Parent Long Name:	Hand-off protocol at the time of transfer to the Intensive Care Unit
Parent Short Name:	HandoffProtocol
Parent Value(s):	= "Yes - Not all required team members present"

SeqNo: 4540

Long Name:	Hand-off protocol - Physician staff of the Intensive Care Unit
Short Name:	HandoffPhysStaff
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the physician staff of the Intensive Care Unit or designee attended the hand-off protocol at the time of transfer to the Intensive Care Unit at the end of the operation.
Parent Long Name:	Hand-off protocol at the time of transfer to the Intensive Care Unit
Parent Short Name:	HandoffProtocol
Parent Value(s):	= "Yes - Not all required team members present"

SeqNo: 4550

Long Name:	Hand-off protocol - Nursing
Short Name:	HandoffNursing
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether a nurse or designee attended the hand-off protocol at the time of transfer to the Intensive Care Unit at the end of the operation.
Parent Long Name:	Hand-off protocol at the time of transfer to the Intensive Care Unit
Parent Short Name:	HandoffProtocol
Parent Value(s):	= "Yes - Not all required team members present"

SeqNo: 4560

Long Name:	Patient died or had major postoperative complication(s)
Short Name:	PostOpComp
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the patient died before hospital discharge and/or had any of these major postoperative complication(s): a. New postoperative renal failure requiring dialysis b. New postoperative neurological deficit persisting at discharge c. Arrhythmia necessitating permanent pacemaker insertion d. Paralyzed diaphragm e. Need for postoperative mechanical circulatory support f. Unplanned reoperation and/or interventional cardiovascular catheterization procedure The detailed definitions for the six postoperative complications are the definitions used in the current version of the STS Congenital Heart Surgery Database. These detailed definitions for these six postoperative complications may be found in the following manuscript: Jacobs JP et al. Quality measures for congenital and pediatric cardiac surgery. World Journal for Pediatric and Congenital Heart Surgery 2012;3:32-47

March 2018: On today's congenital data manager's meeting there was a lot of confusion about "f. Unplanned reoperation" for the question "Patient died or had major postoperative complication(s)". People would like to know if they should be considering only cardiac unplanned reoperations, or all unplanned reoperations". Many people argued that something like a g-tube surgery after an index operation should not be considered a major postoperative complication. Can you please clarify? **Per the data specs, all unplanned reoperations are included as major postoperative complication, including g-tubes.**
April 2018: I am clarifying on the question of whether G-Tubes are considered a major post op complication or not. This is not listed in the definitions and the adult database specifically states that PEG tubes are excluded. (I am aware that two databases can have different answers for complications given the population. Adult seq #6780) I was told that G-tubes ARE included as a post op complication. Can you clarify on this?

The data definition does not include any verbiage around G-tubes. Any unplanned non-cardiac reoperation is a major post-operative complication including G-tube.

SeqNo: 4570

Long Name:	Patient management and outcomes reviewed
Short Name:	PostOpReview
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the patient's management and outcomes were reviewed as a part of a regularly scheduled Quality Assurance and Quality Improvement Cardiac Care Conference (i.e., Morbidity and Mortality conference).
Parent Long Name:	Patient died or had major postoperative complication(s)
Parent Short Name:	PostOpComp
Parent Value(s):	= "Yes"

January 2018: We want to change the structure of our current M&M. Currently we go over every patient with a multidisciplinary group. Our program is growing and we are uncertain that we will be able to take the time to talk about all patients in the group setting. Our question was could the cases be reviewed independently by a surgeon or surgeons in preparation for the M&M? What has been proposed is to send a list of all surgeries, with diagnosis procedure, complications, etc. to all of our surgeons, NP's, PA's, perfusion, etc. and have them review the list to compile a smaller subset of patient for a more in depth educational review at our monthly M&M. We wanted to be sure that we are properly reviewing everyone and are compliant with this measure. **The definition does not include specific guidelines for major complication or mortality review. Individual institutions are able to set their own guidelines for meeting this at this time.**

SeqNo: 4580

Long Name:	Patient management and outcomes reviewed - date
Short Name:	PostOpReviewDate
Database Table Name:	Operations
Data Source:	User
Format:	Date - mm/dd/yyyy
Definition:	Indicate the date this patient's management and outcome was reviewed as a part of a regularly scheduled Quality Assurance and Quality Improvement Cardiac Care Conference (i.e., Morbidity and Mortality conference).
Parent Long Name:	Patient management and outcomes reviewed
Parent Short Name:	PostOpReview
Parent Value(s):	= "Reviewed at conference"

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18. Anesthesia Administrative

SeqNo: 4581
Long Name: Anesthesiologist Present
Short Name: AnesPresent
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an anesthesiologist was present for the procedure.

SeqNo: 4590
Long Name: Primary Anesthesiologist Attending Name
Short Name: PrimAnesName
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by user)
Definition: Indicate the name of the primary anesthesiologist (attending physician present at induction of anesthesia). The name, NPI and signature of all anesthesiologists contributing data to the database must be on file with the STS for data files to be accepted.

Parent Long Name: Anesthesiologist Present
Parent Short Name: AnesPresent
Parent Value(s): = "Yes"

SeqNo: 4600
Long Name: Primary Anesthesiologist National Provider Identifier
Short Name: PrimAnesNPI
Database Table Name: Operations
Data Source: Lookup
Format: Text
Definition: Indicate the individual-level National Provider Identifier (NPI) of the anesthesiologist performing the procedure.

Parent Long Name: Anesthesiologist Present
Parent Short Name: AnesPresent
Parent Value(s): = "Yes"

SeqNo: 4610
Long Name: Secondary Anesthesiologist Attending
Short Name: SecAnes
Database Table Name: Operations

Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a relieving anesthesiologist and/or second anesthesiology attending was present during this procedure.

Parent Long Name: Anesthesiologist Present
Parent Short Name: AnesPresent
Parent Value(s): = "Yes"

SeqNo: 4630
Long Name: Fellow or Resident Present
Short Name: FelRes
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a Fellow or Resident was present during this procedure.

SeqNo: 4640
Long Name: Mid-Level Provider (CRNA, AA) Present
Short Name: CRNA
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a Certified Registered Nurse Anesthetist (CRNA) or Anesthesia Assistant (AA) participated in the patient care during all or part of this procedure.

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19. Anesthesia Preoperative

SeqNo: 4670
Long Name: Preoperative Medications Table Unique Record Identifier
Short Name: PMUniqueID
Database Table Name: PreopMeds
Data Source: Automatic
Format: Text
Definition: Unique identifier for the record in the Preoperative Medications table.

SeqNo: 4680
Long Name: Preoperative Medication Link to Operations Table
Short Name: OperationID

Database Table Name: PreopMeds
Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. This field is the foreign key that links the Preoperative Medications record with the associated record in the Operations table.

SeqNo: 4700
Long Name: Preoperative Medication Category
Short Name: PreopMedCat
Database Table Name: PreopMeds
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the categories of preoperative medication(s) given to the patient within **24** hours (unless noted otherwise) prior to the period of anesthetic care.

April 2015: clarification of time frame for preoperative medications. Time frame updated to 24 hours except for the exceptions listed.

SeqNo: 4710
Long Name: Preoperative Sedation
Short Name: PreopSed
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received preoperative sedation.

SeqNo: 4720
Long Name: Preoperative Sedation Route
Short Name: PreopSedRte
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the route used for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4730
Long Name: Preoperative Sedation Drug - Atropine
Short Name: PreopSedDrugAtro

Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Atropine for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4740
Long Name: Preoperative Sedation Drug - Demerol
Short Name: PreopSedDrugDem
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Demerol for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4741
Long Name: Preoperative Sedation Drug - Dexmedetomidine
Short Name: PreopSedDrugDex
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Dexmedetomidine for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4750
Long Name: Preoperative Sedation Drug - Diazepam
Short Name: PreopSedDrugDiaz
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Diazepam for preoperative sedation.

Parent Long Name: Preoperative Sedation

Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4751
Long Name: Preoperative Sedation Drug - Fentanyl
Short Name: PreopSedDrugFent
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Fentanyl for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4760
Long Name: Preoperative Sedation Drug - Glycopyrrolate
Short Name: PreopSedDrugGlyco
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Glycopyrrolate for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4770
Long Name: Preoperative Sedation Drug - Ketamine
Short Name: PreopSedDrugKet
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Ketamine for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4780
Long Name: Preoperative Sedation Drug - Lorazepam

Short Name: PreopSedDrugLoraz
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Lorazepam for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4790
Long Name: Preoperative Sedation Drug - Midazolam
Short Name: PreopSedDrugMidaz
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Midazolam for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4800
Long Name: Preoperative Sedation Drug - Morphine
Short Name: PreopSedDrugMorph
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Morphine for preoperative sedation.

Parent Long Name: Preoperative Sedation
Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4810
Long Name: Preoperative Sedation Drug - Pentobarbital
Short Name: PreopSedDrugPent
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received Pentobarbital for preoperative sedation.

Parent Long Name: Preoperative Sedation

Parent Short Name: PreopSed
Parent Value(s): = "Yes"

SeqNo: 4820
Long Name: Preoperative Baseline Oxygen Saturation
Short Name: PreopO2Sat
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the preoperative resting pulse oximeter saturation (%) recorded either in the clinic or immediately prior to the procedure.

Low Value: 1.0 High Value: 100.0

SeqNo: 4830
Long Name: Preoperative Oxygen Supplementation
Short Name: PreopOxygen
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient received preoperative oxygen supplementation.

SeqNo: 4840
Long Name: Transport to Procedure Location Date and Time
Short Name: PLocTransDT
Database Table Name: Operations
Data Source: User
Format: Date/Time - mm/dd/yyyy hh:mm
Definition: Indicate the date (mm/dd/yyyy) and time (hh:mm 24-hour clock) of day when the patient was transferred to the procedure location or when anesthesia started.

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20. Anesthesia Monitoring

SeqNo: 4850
Long Name: Arterial Line
Short Name: ArtLine
Database Table Name: Operations

Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an arterial line was used during this procedure.

SeqNo: 4860
Long Name: Arterial Line Type - Radial
Short Name: ArtLineTypeRad
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a radial arterial line type was used during this procedure.
Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4870
Long Name: Arterial Line Type - Brachial
Short Name: ArtLineTypeBrach
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a brachial arterial line type was used during this procedure.

Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4880
Long Name: Arterial Line Type - Axillary
Short Name: ArtLineTypeAx
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an axillary arterial line type was used during this procedure.

Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4890

Long Name: Arterial Line Type - Femoral
Short Name: ArtLineTypeFem
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a femoral arterial line type was used during this procedure.

Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4900
Long Name: Arterial Line Type - Ulnar
Short Name: ArtLineTypeUlnar
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an ulnar arterial line type was used during this procedure.

Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4910
Long Name: Arterial Line Type - Dorsalis Pedis
Short Name: ArtLineTypeDors
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a dorsalis pedis arterial line type was used during this procedure.

Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4920
Long Name: Arterial Line Type - Posterior Tibial
Short Name: ArtLineTypePost
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)

Definition: Indicate whether a posterior tibial arterial line type was used during this procedure.

Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4930
Long Name: Arterial Line Type - Umbilical
Short Name: ArtLineTypeCent
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an umbilical arterial line type was used during this procedure.

Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4931
Long Name: Arterial Line In-Situ Pre-Procedure
Short Name: ArtLinePreProc
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the arterial line was in-situ pre-procedure.

Parent Long Name: Arterial Line
Parent Short Name: ArtLine
Parent Value(s): = "Yes"

SeqNo: 4940
Long Name: Cutdown
Short Name: Cutdown
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a cutdown was used during this procedure.

SeqNo: 4950
Long Name: Cutdown Type - Radial
Short Name: CutdownRad

Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a radial cutdown was used.

Parent Long Name: Cutdown
Parent Short Name: Cutdown
Parent Value(s): = "Yes"

SeqNo: 4960
Long Name: Cutdown Type - Femoral
Short Name: CutdownFem
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a femoral cutdown was used.

Parent Long Name: Cutdown
Parent Short Name: Cutdown
Parent Value(s): = "Yes"

SeqNo: 4970
Long Name: Cutdown Type - Ulnar
Short Name: CutdownUln
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an ulnar cutdown was used.

Parent Long Name: Cutdown
Parent Short Name: Cutdown
Parent Value(s): = "Yes"

SeqNo: 4980
Long Name: Cutdown Type - Other
Short Name: CutdownOth
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether any other type of cutdown was used.

Parent Long Name: Cutdown
Parent Short Name: Cutdown

Parent Value(s): = "Yes"

SeqNo: 4990
Long Name: Percutaneous Central Pressure
Short Name: PercCentPress
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether percutaneous central pressure was used during this procedure.

SeqNo: 5000
Long Name: Percutaneous Central Pressure Location - Right Internal Jugular
Short Name: PCPLocRJug
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the percutaneous central pressure was located in the right internal jugular.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5010
Long Name: Percutaneous Central Pressure Location - Left Internal Jugular
Short Name: PCPLocLJug
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the percutaneous central pressure was used in the left internal jugular.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5020
Long Name: Percutaneous Central Pressure Location - Right Subclavian
Short Name: PCPLocRSub
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the percutaneous central pressure was used in the right subclavian.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5030
Long Name: Percutaneous Central Pressure Location - Left Subclavian
Short Name: PCPLocLSub
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the percutaneous central pressure was used in the left subclavian.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5040
Long Name: Percutaneous Central Pressure Location - Right Femoral Vein
Short Name: PCPLocRFem
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the percutaneous central pressure was used in the right femoral vein.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5050
Long Name: Percutaneous Central Pressure Location - Left Femoral Vein
Short Name: PCPLocLFem
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the percutaneous central pressure was used in the left femoral vein.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5051
Long Name: Percutaneous Central Pressure Location - PICC

Short Name: PCPLocPICC
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the percutaneous central pressure was used in the PICC.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5060
Long Name: Percutaneous Central Pressure Location - Other
Short Name: PCPLocOth
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the percutaneous central pressure was used in any other location.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5062
Long Name: CVP, PICC, LA or RA Line(s) In-Situ Pre-Procedure
Short Name: CVPPICCPreProc
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether CVP, PICC, LA or RA line(s) were in place prior to entering the OR.

Parent Long Name: Percutaneous Central Pressure
Parent Short Name: PercCentPress
Parent Value(s): = "Yes"

SeqNo: 5070
Long Name: CVP Placed By Anesthesia
Short Name: CVPPlaced
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a CVP was placed by anesthesia during this procedure.

SeqNo: 5071
Long Name: Surgeon Placed Lines INSTEAD of Anesthesia Placed Central Lines
Short Name: SurgMonLines
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the surgeon placed one or more central monitoring / medication lines directly in the Right, Left or Common Atria during the procedure INSTEAD of pre-incision placement of a central line by anesthesia or the use of existing percutaneous CVL or PICC. This does not include monitoring lines placed during the procedure in addition to the anesthesia or in-situ catheters.

SeqNo: 5080
Long Name: Swan-Ganz Catheter
Short Name: SGCath
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a Swan-Ganz catheter was inserted or utilized by anesthesia during this procedure.

SeqNo: 5090
Long Name: Oximetric Central Line
Short Name: ScVO2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an oximetric central line was inserted or utilized by anesthesia during this procedure.

SeqNo: 5100
Long Name: Ultrasound Guidance Used For Line Placement
Short Name: UltraGuide
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether real-time ultrasound imaging was used for line placement (i.e., Sonosite or equivalent).

SeqNo: 5110

Long Name:	Neurologic Monitoring
Short Name:	NeuroMonitor
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the patient received neurologic monitoring during this procedure.

SeqNo: 5130

Long Name:	Neurologic Monitoring - Bispectral Index
Short Name:	NeuroMonBIS
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the neurologic monitoring performed during this procedure included Bispectral Index (BIS).
Parent Long Name:	Neurologic Monitoring
Parent Short Name:	NeuroMonitor
Parent Value(s):	= "Yes"

SeqNo: 5140

Long Name:	Neurologic Monitoring - Transcranial Doppler
Short Name:	NeuroMonTCD
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the neurologic monitoring performed during this procedure included Transcranial Doppler (TCD).
Parent Long Name:	Neurologic Monitoring
Parent Short Name:	NeuroMonitor
Parent Value(s):	= "Yes"

SeqNo: 5141

Long Name:	Neurologic Monitoring - NIRS (Cerebral)
Short Name:	NeuroMonNIRS
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether the neurologic (cerebral) monitoring performed during this procedure included Near Infrared Spectroscopy (NIRS).

Parent Long Name: Neurologic Monitoring
Parent Short Name: NeuroMonitor
Parent Value(s): = "Yes"

SeqNo: 5150
Long Name: Neurologic Monitoring - Other
Short Name: NeuroMonOth
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the neurologic monitoring performed during this procedure included some other method.

Parent Long Name: Neurologic Monitoring
Parent Short Name: NeuroMonitor
Parent Value(s): = "Yes"

SeqNo: 5160
Long Name: Lowest Recorded Intraoperative Temperature
Short Name: LowIntraopTemp
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the patient's lowest temperature (in degrees Centigrade) recorded during the intraoperative period.

Low Value: 0.1 High Value: 40.9

SeqNo: 5170
Long Name: Lowest Intraoperative Temperature Monitoring Site
Short Name: IntraopTempSite
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the site where the patient's lowest temperature was being recorded intraoperatively.

SeqNo: 5180
Long Name: Transesophageal Echocardiography
Short Name: TEE
Database Table Name: Operations

Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether a transesophageal echocardiography probe was placed or attempted during this procedure.

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21. Anesthesia Anesthetic Technique

SeqNo: 5190

Long Name:	Induction Date and Time
Short Name:	InductionDT
Database Table Name:	Operations
Data Source:	User
Format:	Date/Time - mm/dd/yyyy hh:mm
Definition:	Indicate the date (mm/dd/yyyy) and time (hh:mm 24-hour clock) of day when the patient was first induced.

SeqNo: 5200

Long Name:	Induction Type - Inhalation
Short Name:	IndTypeInh
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether an inhalation drug was used as an induction agent.

SeqNo: 5220

Long Name:	Induction Agent - Inhalation - Sevoflurane
Short Name:	IndAgentInhalSevo
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether sevoflurane was used for induction of anesthesia.
Parent Long Name:	Induction Type - Inhalation
Parent Short Name:	IndTypeInh
Parent Value(s):	= "Yes"

SeqNo: 5230

Long Name:	Induction Agent - Inhalation - Isoflurane
Short Name:	IndAgentInhalIso
Database Table Name:	Operations

Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether isoflurane was used for induction of anesthesia.

Parent Long Name: Induction Type - Inhalation
Parent Short Name: IndTypeInh
Parent Value(s): = "Yes"

SeqNo: 5240
Long Name: Induction Type - Intravenous
Short Name: IndTypeIV
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an intravenous drug was used as an induction agent.

SeqNo: 5260
Long Name: Induction Agent - Intravenous - Sodium Thiopental
Short Name: IndAgentIVSodT
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether sodium thiopental was used for induction of anesthesia.

Parent Long Name: Induction Type - Intravenous
Parent Short Name: IndTypeIV
Parent Value(s): = "Yes"

SeqNo: 5270
Long Name: Induction Agent - Intravenous - Ketamine
Short Name: IndAgentIVKet
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether ketamine was used for induction of anesthesia.

Parent Long Name: Induction Type - Intravenous
Parent Short Name: IndTypeIV
Parent Value(s): = "Yes"

SeqNo: 5280

Long Name:	Induction Agent - Intravenous - Etomidate
Short Name:	IndAgentIVEtom
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether etomidate was used for induction of anesthesia.
Parent Long Name:	Induction Type - Intravenous
Parent Short Name:	IndTypeIV
Parent Value(s):	= "Yes"

SeqNo: 5290

Long Name:	Induction Agent - Intravenous - Propofol
Short Name:	IndAgentIVProp
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether propofol was used for induction of anesthesia.
Parent Long Name:	Induction Type - Intravenous
Parent Short Name:	IndTypeIV
Parent Value(s):	= "Yes"

SeqNo: 5300

Long Name:	Induction Agent - Intravenous - Fentanyl
Short Name:	IndAgentIVFent
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether fentanyl was used for induction of anesthesia.
Parent Long Name:	Induction Type - Intravenous
Parent Short Name:	IndTypeIV
Parent Value(s):	= "Yes"

SeqNo: 5310

Long Name:	Induction Agent - Intravenous - Midazolam
Short Name:	IndAgentIVMid
Database Table Name:	Operations
Data Source:	User
Format:	Text (categorical values specified by STS)
Definition:	Indicate whether intravenous midazolam was used for induction of anesthesia.

Parent Long Name: Induction Type - Intravenous
Parent Short Name: IndTypeIV
Parent Value(s): = "Yes"

SeqNo: 5320
Long Name: Induction Agent - Intravenous - Dexmedetomidine
Short Name: IndAgentIVDex
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether dexmedetomidine was used for induction of anesthesia.

Parent Long Name: Induction Type - Intravenous
Parent Short Name: IndTypeIV
Parent Value(s): = "Yes"

SeqNo: 5330
Long Name: Induction Agent - Intravenous - Sufentanil
Short Name: IndAgentIVSuf
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether sufentanil was used for induction of anesthesia.

Parent Long Name: Induction Type - Intravenous
Parent Short Name: IndTypeIV
Parent Value(s): = "Yes"

SeqNo: 5340
Long Name: Induction Agent - Intravenous - Remifentanil
Short Name: IndAgentIVRem
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether remifentanil was used for induction of anesthesia.

Parent Long Name: Induction Type - Intravenous
Parent Short Name: IndTypeIV
Parent Value(s): = "Yes"

SeqNo: 5350
Long Name: Induction Type - Intramuscular
Short Name: IndTypeIM
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an intramuscular drug was used as an induction agent.

SeqNo: 5370
Long Name: Induction Agent - Intramuscular - Ketamine
Short Name: IndAgentIMKet
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether ketamine was used for induction of anesthesia.

Parent Long Name: Induction Type - Intramuscular
Parent Short Name: IndTypeIM
Parent Value(s): = "Yes"

SeqNo: 5380
Long Name: Induction Agent - Intramuscular - Midazolam
Short Name: IndAgentIMMid
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether intramuscular midazolam was used for induction of anesthesia.

Parent Long Name: Induction Type - Intramuscular
Parent Short Name: IndTypeIM
Parent Value(s): = "Yes"

SeqNo: 5400
Long Name: Regional Anesthetic
Short Name: RegionalAnes
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a regional anesthetic was used during this operation.

SeqNo: 5410

Long Name: Regional Anesthetic Site
Short Name: RegAnesSite
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the technique used for the regional anesthetic.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5420
Long Name: Regional Anesthetic Drug - Bupivicaine
Short Name: RegAnesDrugBup
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Bupivicaine was used during this procedure.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5430
Long Name: Regional Anesthetic Drug - Bupivicaine/Fentanyl
Short Name: RegAnesDrugBupFen
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Bupivicaine/Fentanyl was used during this procedure.
Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5440
Long Name: Regional Anesthetic Drug - Clonidine
Short Name: RegAnesDrugClon
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Clonidine was used during this procedure.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5450
Long Name: Regional Anesthetic Drug - Fentanyl
Short Name: RegAnesDrugFen
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Fentanyl was used during this procedure.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5460
Long Name: Regional Anesthetic Drug - Hydromorphone
Short Name: RegAnesDrugHydro
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Hydromorphone was used during this procedure.
Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5470
Long Name: Regional Anesthetic Drug - Lidocaine
Short Name: RegAnesDrugLido
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Lidocaine was used during this procedure.
Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5480
Long Name: Regional Anesthetic Drug - Morphine

Short Name: RegAnesDrugMorph
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Morphine was used during this procedure.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5490
Long Name: Regional Anesthetic Drug - Ropivicaine
Short Name: RegAnesDrugRop
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Ropivicaine was used during this procedure.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5500
Long Name: Regional Anesthetic Drug - Ropivicaine/Fentanyl
Short Name: RegAnesDrugRopFen
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Ropivicaine/Fentanyl was used during this procedure.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5510
Long Name: Regional Anesthetic Drug - Tetracaine
Short Name: RegAnesDrugTetra
Database Table Name: Operations
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate whether the regional anesthetic drug Tetracaine was used during this procedure.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5520
Long Name: Regional Anesthetic Drug - Other
Short Name: RegAnesDrugOth
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether any other regional anesthetic drug was used during this procedure.

Parent Long Name: Regional Anesthetic
Parent Short Name: RegionalAnes
Parent Value(s): = "Yes"

SeqNo: 5530
Long Name: Intercostal Nerve Infiltration By Surgeon or Anesthesia
Short Name: IntNerveInf
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether intercostal nerve infiltration was performed by the surgeon or anesthesiologist.

SeqNo: 5540
Long Name: Regional Field Block by Surgeon or Anesthesia
Short Name: RegFieldBlock
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether a regional field block was performed by the surgeon or anesthesiologist.

---

22. Anesthesia Airway

SeqNo: 5550
Long Name: Airway In-situ (ETT or Tracheostomy)
Short Name: AirwayInsitu
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an Endotracheal Tube (ETT) or tracheostomy was in place prior to arrival in the procedure area.

SeqNo: 5551
Long Name: ETT or Tracheostomy Replaced For Procedure
Short Name: AirwayReplaced
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the Endotracheal Tube or tracheostomy was electively replaced prior to the procedure. For example, oral to nasal ETT, tracheostomy to ETT, uncuffed to cuffed ETT.

Parent Long Name: Airway In-situ (ETT or Tracheostomy)
Parent Short Name: AirwayInsitu
Parent Value(s): = "Yes"

SeqNo: 5560
Long Name: Airway Type
Short Name: AirwayType
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of airway support that was used during this procedure.
SeqNo: 5570
Long Name: Airway Size - Laryngeal Mask Airway
Short Name: AirwaySizeLMA
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the size of the laryngeal mask airway used during this operation

Parent Long Name: Airway Type
Parent Short Name: AirwayType
Parent Value(s): = "Laryngeal Mask Airway (LMA)"

SeqNo: 5580
Long Name: Airway Size - Endotracheal Intubation
Short Name: AirwaySizeIntub
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the size of the endotracheal intubation airway used during this procedure. Measurement should be the inner diameter (ID) size measured in millimeters (mm).

Parent Long Name: Airway Type
Parent Short Name: AirwayType
Parent Value(s): = "Endotracheal intubation"

SeqNo: 5590
Long Name: Cuffed
Short Name: Cuffed
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the endotracheal tube was cuffed.

Parent Long Name: Airway Type
Parent Short Name: AirwayType
Parent Value(s): = "Endotracheal intubation"

SeqNo: 5600
Long Name: Airway Site
Short Name: AirwaySite
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the endotracheal intubation site.

Parent Long Name: Airway Type
Parent Short Name: AirwayType
Parent Value(s): = "Endotracheal intubation" or "Tracheostomy"

SeqNo: 5610
Long Name: Endobronchial Isolation (DLETT, Bronchial Blocker)
Short Name: EndobroncIso
Database Table Name: Operations
Data Source: User

Format: Text (categorical values specified by STS)
Definition: Indicate whether endobronchial isolation was employed using a double lumen ETT or bronchial blocker.

SeqNo: 5611
Long Name: Endobronchial Isolation Method
Short Name: EndobroncIsoMeth
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the method used to isolate lung.

Parent Long Name: Endobronchial Isolation (DLETT, Bronchial Blocker)
Parent Short Name: EndobroncIso
Parent Value(s): = "Yes"

SeqNo: 5620
Long Name: ICU-Type Ventilator Used Intraop
Short Name: ICUTypeVent
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether an ICU-type ventilator was used during the procedure.

SeqNo: 5621
Long Name: Anesthesia Ready / End of Induction
Short Name: EndOfInductDT
Database Table Name: Operations
Data Source: User
Format: Date/Time - mm/dd/yyyy hh:mm
Definition: Indicate the date and time at which anesthesia preparations for surgery, such as placement of desired airway and vascular access, have been completed.

---

24. Anesthesia Intraoperative Pharmacology

SeqNo: 6120
Long Name: Intraoperative Pharmacology Table Unique Record Identifier
Short Name: IPUniqueID

Database Table Name: IntraopPharm
Data Source: Automatic
Format: Text
Definition: Unique idenitifer for the record in the Intraoperative Pharmacology table.

SeqNo: 6130
Long Name: Intraoperative Pharmacology Link to Operations Table
Short Name: OperationID
Database Table Name: IntraopPharm
Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. This field is the foreign key that links the Intraoperative Pharmacology record with the associated record in the Operations table.

SeqNo: 6140
Long Name: IntraOperative Pharmacology (Including CPB)
Short Name: IntraopPharm
Database Table Name: IntraopPharm
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the medications that were given during the intraoperative time period.

---

25. Anesthesia Pharmacology On Arrival To ICU/PACU

SeqNo: 6150
Long Name: ICU Pharmacology Table Unique Record Identifier
Short Name: ICUPUniqueID
Database Table Name: ICUPharm
Data Source: Automatic
Format: Text
Definition: Unique identifer for the record in the ICU Pharmacology table.

SeqNo: 6160
Long Name: ICU Pharmacology Link to Operations Table
Short Name: OperationID
Database Table Name: ICUPharm

Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. This field is the foreign key that links the ICU Pharmacology record with the associated record in the Operations table.

SeqNo: 6170
Long Name: ICU/PACU Arrival Pharmacology
Short Name: ICUPharm
Database Table Name: ICUPharm
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the medications that were given to the patient on arrival to ICU (Intensive Care Unit) / PACU (Post Anesthesia Care Unit).

---

26. Anesthesia ICU/PACU Care

SeqNo: 6180
Long Name: ICU/PACU Arrival Date and Time
Short Name: ICUArrDT
Database Table Name: Operations
Data Source: User
Format: Date/Time - mm/dd/yyyy hh:mm
Definition: Indicate the date (mm/dd/yyyy) and time (hh:mm 24-hour clock) the patient arrived to the ICU / PACU.

SeqNo: 6190
Long Name: Initial FiO2
Short Name: InitialFiO2
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the initial FiO2 (closest to the patient's arrival).

Low Value: 0.17 High Value: 1.0

SeqNo: 6200
Long Name: Mechanical Circulatory Support (ECMO/VAD)
Short Name: MechCircSup

Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient was on extracorporeal membrane oxygenation (ECMO) or on Ventricular Assist Device (VAD) on arrival.

SeqNo: 6211
Long Name: ICU/PACU Arrival Labs
Short Name: ICUPACULabs
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether lab tests were drawn upon arrival to PACU or ICU.

SeqNo: 6220
Long Name: pH
Short Name: pH
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the pH level from the first ABG obtained.

Low Value: 6.00 High Value: 8.00
Parent Long Name: ICU/PACU Arrival Labs
Parent Short Name: ICUPACULabs
Parent Value(s): = "Yes"

SeqNo: 6230
Long Name: pCO2
Short Name: pCO2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the pCO2 level from the first ABG obtained.

Low Value: 20 High Value: 150
Parent Long Name: ICU/PACU Arrival Labs
Parent Short Name: ICUPACULabs
Parent Value(s): = "Yes"

SeqNo: 6240

Long Name: pO2
Short Name: pO2
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the pO2 level from the first ABG obtained.

Low Value: 15 High Value: 650
Parent Long Name: ICU/PACU Arrival Labs
Parent Short Name: ICUPACULabs
Parent Value(s): = "Yes"

SeqNo: 6250
Long Name: Base Excess
Short Name: BaseExcess
Database Table Name: Operations
Data Source: User
Format: Integer
Definition: Indicate the Base Excess level from the first ABG obtained.

Low Value: -30 High Value: 30
Parent Long Name: ICU/PACU Arrival Labs
Parent Short Name: ICUPACULabs
Parent Value(s): = "Yes"

SeqNo: 6260
Long Name: Lactate
Short Name: Lactate
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the Lactate level from the first ABG obtained.

Low Value: 0.1 High Value: 30.0
Parent Long Name: ICU/PACU Arrival Labs
Parent Short Name: ICUPACULabs
Parent Value(s): = "Yes"

SeqNo: 6270
Long Name: Hematocrit
Short Name: Hematocrit
Database Table Name: Operations

Data Source: User
Format: Real
Definition: Indicate the hematocrit level from the first ABG obtained.

Low Value: 5.0 High Value: 70.0
Parent Long Name: ICU/PACU Arrival Labs
Parent Short Name: ICUPACULabs
Parent Value(s): = "Yes"

SeqNo: 6280
Long Name: Initial Pulse Oximeter
Short Name: InitPulseOx
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the first pulse oximeter measurement after arrival to ICU / PACU.

Low Value: 50.0 High Value: 100.0

SeqNo: 6290
Long Name: Temperature ICU/PACU Arrival
Short Name: TempICUArr
Database Table Name: Operations
Data Source: User
Format: Real
Definition: Indicate the patient's temperature in degrees centigrade on arrival to the ICU/PACU.

Low Value: 30.0 High Value: 43.0

SeqNo: 6300
Long Name: Temperature Measurement Site
Short Name: TempSite
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the location where the patient's temperature was measured.

Parent Long Name: Temperature ICU/PACU Arrival
Parent Short Name: TempICUArr
Parent Value(s): Is Not Missing

SeqNo: 6310
Long Name: Temporary Pacemaker on Arrival In ICU/PACU
Short Name: TempPace
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the need for a temporary pacemaker on arrival to the ICU/PACU.

SeqNo: 6320
Long Name: Temporary Pacemaker Site
Short Name: TempPaceSite
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the site of the temporary pacemaker.

Parent Long Name: Temporary Pacemaker on Arrival In ICU/PACU
Parent Short Name: TempPace
Parent Value(s): = "Yes"

SeqNo: 6330
Long Name: Type of Temporary Pacing
Short Name: TempPaceType
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the type of temporary pacing.

Parent Long Name: Temporary Pacemaker on Arrival In ICU/PACU
Parent Short Name: TempPace
Parent Value(s): = "Yes"

SeqNo: 6340
Long Name: Disposition Under Anesthesia
Short Name: DispUnderAnes
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate patient disposition after completion of anesthetic management.

SeqNo: 6350

Long Name: Peri-Anesthetic Demise (Within 24 Hours of Last Anesthesia End Time)
Short Name: PeriAnesDemise
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether the patient died within 24 hours of end of anesthesia.

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27. Anesthesia Adverse Events

SeqNo: 6360
Long Name: Anesthesia Adverse Events Unique Record Identifier
Short Name: AAEUniqueID
Database Table Name: AAdvEvents
Data Source: Automatic
Format: Text
Definition: Unique identifier for the record in the Anesthesia Adverse Events table.

SeqNo: 6370
Long Name: Anesthesia Adverse Events Link to Operation Table
Short Name: OperationID
Database Table Name: AAdvEvents
Data Source: Automatic
Format: Text
Definition: An arbitrary, unique value generated by the software that permanently identifies each operation record in the participant's database. This field is the foreign key that links the Anesthesia Adverse Events record with the associated record in the Operations table.

SeqNo: 6380
Long Name: Anesthesia Adverse Event
Short Name: AnesAdvEvent
Database Table Name: AAdvEvents
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate the anesthesia-related adverse events that occurred.

September 2018: Operation type: No CPB Cardiovascular; Include the preoperative factors that were present at the time the cardiac surgeon entered the OR, in this case shock and CPR. Anesthesia Adverse event – if a participating anesthesiologist follow up with them to determine if it should be entered.

SeqNo: 6381

Long Name: Anesthesia Adverse Event - Additional Intervention Required
Short Name: AnesAdvEventInt
Database Table Name: AAdvEvents
Data Source: User
Format: Text (categorical values specified by STS)
Definition: Indicate whether additional intervention was required as a result of this adverse event.

Parent Long Name: Anesthesia Adverse Event
Parent Short Name: AnesAdvEvent
Parent Value(s): Is Not "None" And Is Not Missing

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28. STS Temporary Fields

SeqNo: 6721
Long Name: Temporary Yes/No Field #1
Short Name: TempYN1
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: This is a temporary field that should not be used for data collection until expressly instructed to by the STS.

SeqNo: 6722
Long Name: Temporary Yes/No Field #2
Short Name: TempYN2
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: This is a temporary field that should not be used for data collection until expressly instructed to by the STS.

SeqNo: 6723
Long Name: Temporary Date Field
Short Name: TempDt
Database Table Name: Operations
Data Source: User
Format: Date - mm/dd/yyyy
Definition: This is a temporary field that should not be used for data collection until expressly instructed to by the STS.

SeqNo: 6724
Long Name: Temporary Coded Field

Short Name: TempCode
Database Table Name: Operations
Data Source: User
Format: Text (categorical values specified by STS)
Definition: This is a temporary field that should not be used for data collection until expressly instructed to by the STS.

SeqNo: 6725
Long Name: Temporary Text Field
Short Name: TempText
Database Table Name: Operations
Data Source: User
Format: Text
Definition: This is a temporary field that should not be used for data collection until expressly instructed to by the STS.
