STS National Database™

Trusted. Transformed. Real-Time.

The Society of Thoracic Surgeons

Congenital Heart Surgery Database

May 19, 2026

Agenda

- Welcome and Introduction
- STS Update
- STS Data Manager Education Q&A

STS Updates

- May Training Manual Posted
- 2026 Harvest Dates
- S26 Analysis Reports
  - Expected to be available by end of next week (5/29)

2026 Harvest

Term	Harvest Submission Window Close	Opt-Out Date	Includes Procedures Performed Through:	Report Posting	Comments
S ing 026	March 27	March 31	December 31, 2025	Summer 2026	
Fall 2026	October 9	October 13	June 30, 2026	Winter 2026	
Analysis for each harvest is based on a 48-month window.					

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

AQO 2026 – New Orleans

- **September 30 - October 2, 2026**
- CHSD & GTSD Sessions will be held Sept 30th (full day) and October 1st (half day)
- Intermacs & Pedimacs-Live Virtual Forum- September 24th
- ACSD Sessions will be held October 1st (full day) and October 2nd (half day)
- Half day sessions will include breakout discussions for the on-site databases

- Abstract Submission Form and Guideline:
  - Abstract Submission Form
  - Abstract submission deadline: June 12th

Education Discussion Topics

Updated **OPTIONAL** limited data collection

- Review future options for reducing data collection burden

Review of Operation Type Determination

- Choosing the correct OpType, best practices

Updated **OPTIONAL** limited dataset

~150,000 cases are submitted to CHSD each Harvest, only 100,000 are eligible for analysis

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STS Leadership asked CHSD to reduce data burden prior to an upgrade

Updated **OPTIONAL** limited dataset

In late 2024, CHSD introduced a limited dataset for patients ≥6575 days to reduce data burden for adults with CHD

Sites haven't reported issues with local data use, harvest submissions, or aggregate reporting

Next step, address patients <6575 days by offering a ***similar*** option to collect less data

Updated **OPTIONAL** limited dataset

Beginning July 1, 2026, sites can opt to collect a LIMITED dataset (~25 fields) on any **non-cardiac** cases with:

- OpTypes: 3, 4, 6*, 7*, 9, or 777
- ECMO, Thoracic, VAD operations with or without CPB (*excluding VAD insertions), CPB Non-Cardiovascular, Other

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FULL dataset on all cases with:

- OpTypes: 1 or 2
- CPB Cardiovascular, No CPB Cardiovascular
- And all VAD insertions
  (procedure code: (2380) VAD, implant)

Updated **OPTIONAL** limited dataset

Administrative Data*	No change
Demographics	Birth information
NCAA	Chromosomal Abnormalities
Syndromes	Longitudinal Follow up (LKFU)

*patient must have demographics record collected once during lifetime

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*patient must have demographics record collected once during lifetime

Calculated Fields	No change
Age in days	BMI / BSA
DB discharge date	Mt status at DB discharge

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Calculated Fields	**No change**
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DB discharge date	Mt status at DB discharge

Operative Fields	**Optional**
Preoperative Factors	Preoperative Labs/Testing
Secondary diagnoses	Status post diagnoses
Secondary procedures	Postoperative events
Patient process measures	

Updated **OPTIONAL** limited dataset

Required	
Participant ID (usually programed)	Hospital information (name, NPI)
Admission date	Surgery date
Height	Weight
Primary Diagnosis	Primary Procedure
ECMO procedure info (for ECMO procedures only)	VAD implant/explant info (for VAD procedures only)
Procedure location	Status
Operation Type	Surgeon/Surgeon NPI
Patient expires in OR	Patient remains hospitalized during this Episode of care
Date of hospital d/c	Status at hospital d/c
End of DB tracking date	End of DB tracking status
Status at 30 days	30-day status method of verification
Operative Mortality	

Updated **OPTIONAL** limited dataset, things to consider…

Local use of data

- Do you have any reports that go out to your team/administration?
- Which fields are still needed?

Updated **OPTIONAL** limited dataset, things to consider…

IQVIA reports

- Beware of missing fields when submitting
- Limited dataset logic is NOT set up in IQVIA
- Filter for OpTypes 1 & 2 where available


File
Edit
Data
Visuali
Export
Report Description:
Use this report to determine which variables are missing data for the date range selected.
Date Range: 01/01/2025 - 12/31/2025
All
All (No Anesthesia)
Mortality
Anesthesia
Risk Model
Operation Type
OPERATION TYPE 1 AND 2
OTHER
MVR

File Edit Data Visuali

Export

Report Description:

Use this report to determine which variables are missing data for the date range selected.

Date Range: 01/01/2025 - 12/31/2025

- All
- All (No Anesthesia)
- Mortality
- Anesthesia
- Risk Model

Operation Type

- [x] OPERATION TYPE 1 AND 2
- [x] OTHER

MVR

Show Index Operations Only

Yes

Age

Adults 18 and older

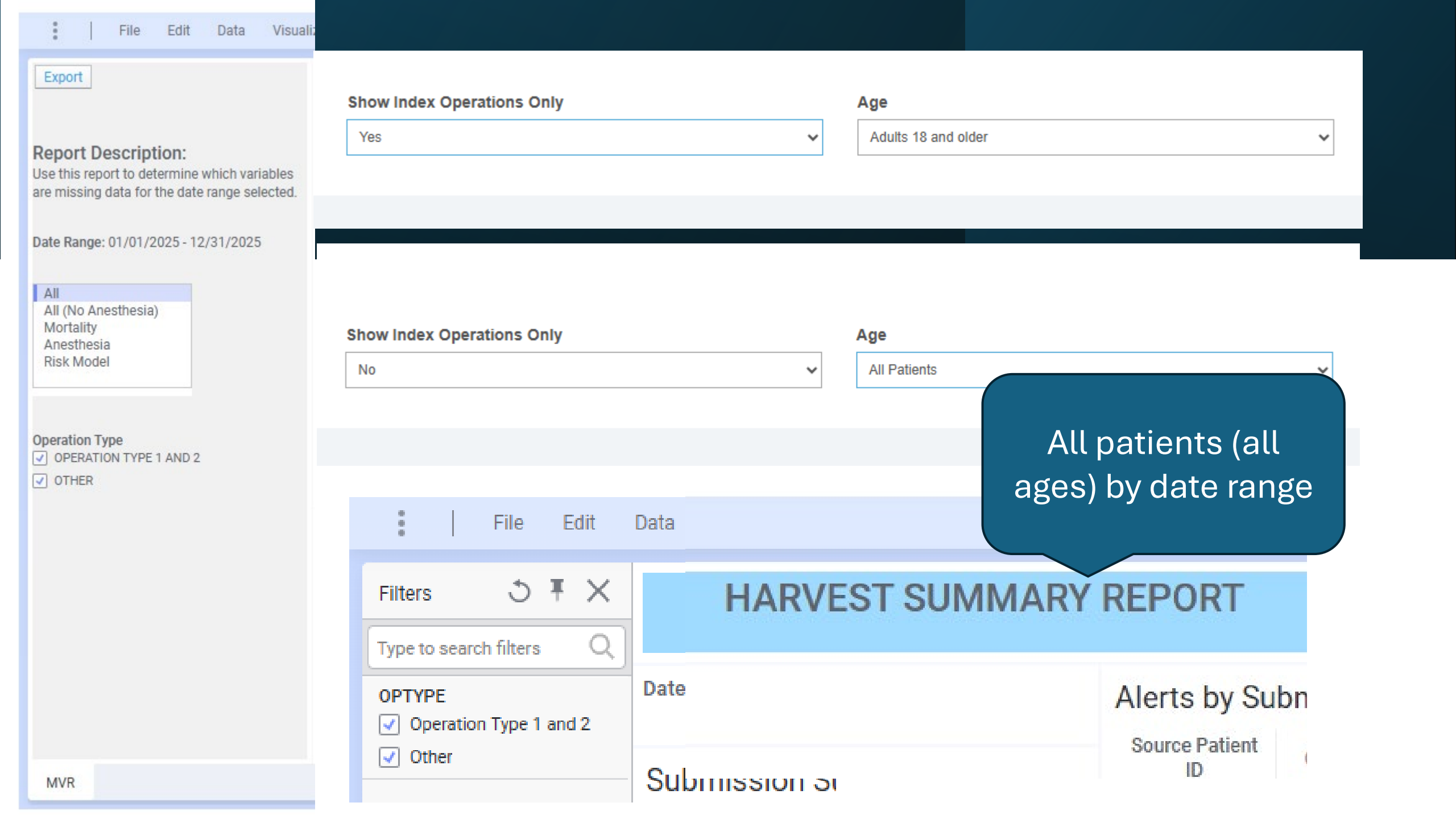
Show Index Operations Only

No

Age

All Patients

?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Show Index Operations Only
No
Age
All Patients
All patients (all ages) by date range
File
Edit
Data
Filters
Type to search filters
OPTYPE
Operation Type 1 and 2
Other
HARVEST SUMMARY REPORT
Date
Alerts by Subn
Source Patient ID

Updated **OPTIONAL** limited dataset, things to consider…

- Do other teams share software with you?
- Do other registries share fields?
- Which fields, if any, would be helpful to continue to collect?

Other registries or shared software

Updated **OPTIONAL** limited dataset, things to consider…

- Notifications will be sent to surgeon representatives as well, but you are the expert!
- Be clear with what is still captured and what will not be available (volume unchanged, less details)
- It is harder to go back and ADD data further down the line

Talk to your team

Updated **OPTIONAL** limited dataset, things to consider…

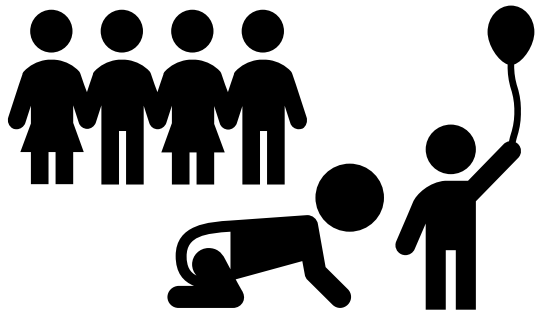
Local use of data

Other registries or shared software

IQVIA reports

Talk to your team

Updated **OPTIONAL** limited dataset, recap!



For patients <6575 days, limited dataset allowed for NON-CARDIAC cases*

For patients >=6575 days, limited dataset allowed for NON-INDEX cases

Operation Type (OpType) Determination

Topic Review

- Review of available OpTypes
- Methods for selecting correct OpType

REVIEW ONLY!

There are no updates/changes to definitions

Operation Types in the CHSD

Cardiac

- (1) CPB Cardiovascular
- (2) No CPB Cardiovascular

Non-Cardiac

- (9) CPB Non-Cardiovascular
- (3) ECMO
- (4) Thoracic
- (6) VAD Operation Done with CPB
- (7) VAD Operation Done without CPB
- (777) Other

Operation Types in the CHSD

See TM for inclusion procedures

Cardiac Op Types:

CPB Cardiovascular	Cardiovascular procedure (includes the heart, great vessels, or any branches of the great vessels), and cardiopulmonary bypass (CPB) is used.
No CPB Cardiovascular	Cardiovascular procedure (includes the heart, great vessels, or any branches of the great vessels), and cardiopulmonary bypass (CPB) is *not* used.

Operation Types in the CHSD

Non-Cardiac Op Types:

See TM for inclusion procedures

CPB Non-Cardiovascular	Procedure done with cardiopulmonary bypass (CPB) support that do not involve a concomitant cardiovascular procedure.
Thoracic	Procedure performed on a structure within the chest cavity but does not involve the cardiac chambers or vessels and cardiopulmonary bypass (CPB) is not used.

Operation Types in the CHSD

Non-Cardiac Op Types:

See TM for inclusion procedures

VAD Operation Done With CPB

Procedures where ventricular assist device (VAD) insertion or removal is the primary procedure where cardiopulmonary bypass (CPB) support is utilized. Includes procedures completed on VAD support if there are no major structural repair(s) done on the heart, great vessels, or any branches of the great vessels unless the repair is supporting/facilitating the VAD circuit. Includes procedures where an oxygenator is added to or removed from a VAD circuit (update Mar-26)

VAD Operation Done Without CPB

Procedures where ventricular assist device (VAD) insertior or removal is the primary procedure and cardiopulmonary bypass (CPB) support is not utilized. Includes procedures completed on VAD support if there are no major structural repair(s) done on the heart, great vessels, or any branches of the great vessels unless the procedure is facilitating the VAD circuit. Includes procedures where an oxygenator is added to or removed from a VAD circuit (update Mar-26)

Operation Types in the CHSD

Non-Cardiac Op Types:

See TM for inclusion procedures

ECMO	Procedures where extracorporeal membrane oxygenation (ECMO) cannulation or decannulation is the primary procedure. Includes procedures completed on ECMO if there are no major structural repair(s) done on the heart, great vessels, or any branches of the great vessels unless the repair is done to support/facilitate the ECMO circuit.
Other	All other procedures that do not fall within the above definitions should be coded as (777) Other. This includes but is not limited to supportive minor procedures (e.g., line placements) or procedures (7810) Operation aborted after skin incision or (7800) Operation canceled before skin incision.

Determining the OpType of an Operation:

Read the operation note dictated by the surgeon:

1) Determine what kind of support (if any) was utilized
2) Identify the procedure(s) performed
3) Think about the OpType aligning with the procedure(s)

additional COMPLEXITY with surgeries completed while on mechanical circulatory support (VAD/ECMO)

Determining the OpType of an Operation:

Operations Completed on MCS:

Code major structural repairs done on the heart and/or great vessels while the patient is receiving MCS as OpType (1) CPB Cardiovascular or (2) No-CPB Cardiovascular (the VAD/ECMO circuit is providing circulatory support) ***unless*** the repair is done to support the VAD/ECMO circuit

See the TM and previous webinar for additional guidance coding OpType VAD

Determining the OpType of an Operation:

The OpType is not determined by:

- the status of the case (i.e., emergent or salvage)
- the operation location
- the incision type
- the STAT mortality score for the procedure
- the mortality status of the patient
- whether or not a specific procedure is 'normally' done with or without circulatory support

OpType Determination – Example #1

The cardiac surgeon comes to the NICU and places temporary pacing wires without the use of cardiopulmonary bypass in a patient with congenital heart block with plans to place a permanent pacemaker when the patient reaches 3.0kg body weight.

Which of the following is the correct OpType?

- ☐ (2) No CPB-Cardiovascular
- ☐ (4) Thoracic
- ☐ (777) Other

OpType Determination – Example #1

The cardiac surgeon comes to the NICU and places temporary pacing wires without the use of cardiopulmonary bypass in a patient with congenital heart block with plans to place a permanent pacemaker when the patient reaches 3.0kg body weight.

Which of the following is the correct OpType?

- ☑ (2) No CPB-Cardiovascular
- ☐ (4) Thoracic
- ☐ (777) Other

OpType Determination – Example #1 Explanation

- Procedure completed on heart or great vessels = Yes

Cardiac OpType

- Circulatory support utilized = No

No-CPB Cardiovascular

OpType Determination – Example #2

Patient returns to the hospital for removal of a protruding sternal wire. In the OR, the surgeon creates a small opening and clips the sternal wire without the use of circulatory support.

Which of the following is the correct OpType?

- ☐ (2) No CPB-Cardiovascular
- ☐ (4) Thoracic
- ☐ (777) Other

OpType Determination – Example #2

Patient returns to the hospital for removal of a protruding sternal wire. In the OR, the surgeon creates a small opening and clips the sternal wire without the use of circulatory support.

Which of the following is the correct OpType?

- ☐ (2) No CPB-Cardiovascular
- ☑ (4) Thoracic
- ☐ (777) Other

OpType Determination – Example #2 Explanation

- Procedure completed on heart or great vessels = No

Non-Cardiac OpType

- Circulatory support utilized = No

OpType Thoracic vs. Other

- Refer to specific TM definitions = procedure within chest cavity but does not involve cardiac chambers or vessels

Thoracic

OpType Determination – Example #3

Patient arrives at the hospital for a planned diagnostic cath. While in the cath lab, the RV is injured and drain placed. The cardiac surgeon is called into the cath lab to repair the injury. The surgeon cannulates the patient for ECMO and repairs the ventricle. The patient experiences severe neurologic injury and support is withdrawn and the patient dies.

Which of the following is the correct OpType?

- ☐ (1) CPB Cardiovascular
- ☐ (2) No CPB-Cardiovascular
- ☐ (3) ECMO

OpType Determination – Example #3

Patient arrives at the hospital for a planned diagnostic cath. While in the cath lab, the RV is injured and drain placed. The cardiac surgeon is called into the cath lab to repair the injury. The surgeon cannulates the patient for ECMO and repairs the ventricle. The patient experiences severe neurologic injury and support is withdrawn and the patient dies.

Which of the following is the correct OpType?

- ☑ (1) CPB Cardiovascular
- ☐ (2) No CPB-Cardiovascular
- ☐ (3) ECMO

OpType Determination – Example #3 Explanation

- Procedure completed on heart or great vessels = Yes (RV repair)

Cardiac OpType

- Circulatory support utilized = Yes

CPB Cardiovascular

And yes, this is the index operation and is an analyzed operative mortality in the CHSD

OpType Determination – Example #4

Patient receiving VAD support recovers without needing heart transplantation. In the OR, the surgeon explants the VAD and then inserts a permanent pacemaker for ongoing arrhythmias.

Which of the following is the correct OpType?

- ☐ (1) CPB Cardiovascular
- ☐ (2) No CPB-Cardiovascular
- ☐ (7) VAD Operation Done Without CPB

OpType Determination – Example #4

Patient receiving VAD support recovers without needing heart transplantation. In the OR, the surgeon explants the VAD and then inserts a permanent pacemaker for ongoing arrhythmias.

Which of the following is the correct OpType?

- ☐ (1) CPB Cardiovascular
- ☑ (2) No CPB-Cardiovascular
- ☐ (7) VAD Operation Done Without CPB

OpType Determination – Example #2 Explanation

- Procedure completed on heart or great vessels = Yes (PM insertion)

Cardiac OpType

- Circulatory support utilized = No (not during time of PM insertion)

No-CPB Cardiovascular

Operation Type (OpType) Determination

In Summary

- OpType is important in analysis and when electing to collect the limited dataset
- Utilize the TM for guidance and examples for coding OpType
- When in doubt, submit a FAQ

Open Discussion

Please use the Q&A Function.

We will answer as many questions as possible.

We encourage your feedback and want to hear from you!

Upcoming CHSD Webinars

Monthly Webinars

- 6/16/26 @ 12pmCT
- 7/21/26 @ 12pmCT

Contact Information

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