The Society of Thoracic Surgeons

Intermacs & Pedimacs User Group Webinar

February 25, 2026

STS National Database™
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Today's Agenda

- Welcome and Introductions
- Updates
- ***Intermacs & Pedimacs Forms Training Series***
  - Preimplant & Implant
- Q&A

The STS Team

Nancy Honeycutt, BSN, RN LSSGBH, National Database Manager for the ACSD, Intermacs and Pedimacs

Carole Krohn, MPH, BSN, RN, LSSGB, Director of the STS National Database

Leighann Jones, BS, National Database Manager for the Congenital and General Thoracic Databases

Emily Conrad, MS, National Database Education Manager

The Intermacs Data Warehouse Team

Brandon Singletary, PhD, Statistician III, Epidemiologist

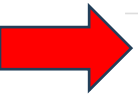
Ryan Cantor, PhD, Chief Scientific Officer

Rama Rudraraju, PhD, Director of Programming

John Pennington, MSHI, Director of Data Management

When Are The Reports Distributed?

Calendar Quarter	Data Entry Deadline	Coverage Stop Date	Distribution Date
Q1	April 30th	March 31st	June 30th
Q2	July 31st	June 30th	September 30th
Q3	October 31st	September 30th	December 31st
Q4	January 31st	December 31st	March 31st



PHI Security Reminder

Protected Health Information (PHI)

To protect patient privacy, PHI should only be shared via **secure** or **encrypted** email.

❌ Do not send PHI through regular email

✓ If you do not have a way to send a secure email, please reach out to me and I will send you a Neo Certified email that you can respond to

Upcoming Webinars

- Intermacs/Pedimacs User Group Webinar
  - March 25th @ 1PM CT
- Intermacs/Pedimacs Quality Assurance Report Overview Quarterly Webinar
  - April 16th @ 2PM CT
- Intermacs/Pedimacs User Group Webinar
  - April 29th @ 1PM CT

Intermacs & Pedimacs Forms Training Series

Session 1: Screening Log & Demographics

Session 2: Preimplant & Implant Forms

Session 3: Follow-Up Forms

Session 4: Implant Discharge, 1-Year Post Cessation, Patient Transfer

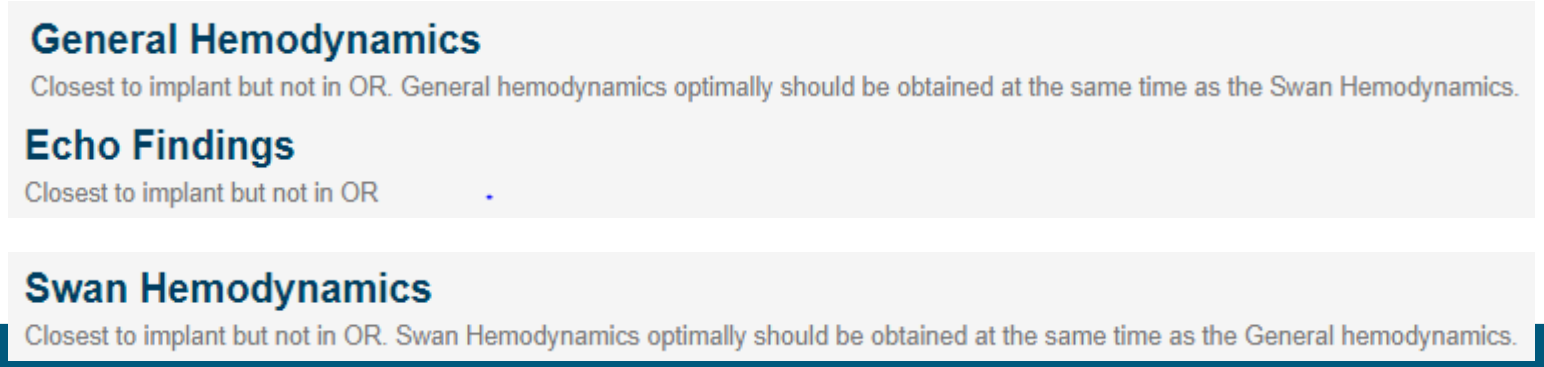
Session 5 and Beyond: Adverse Events

Learning Objectives

- At the conclusion of this webinar, participants will be able to:
- • Identify the required data elements for the Intermacs Pre-Implant and Implant forms
  • Correctly determine the appropriate timing window for data collection and form submission
  • Accurately enter patient clinical, hemodynamic, and device information into the registry

Pre-implant Form-Things to Remember

- The Pre-Implant Form should be collected
  - Closest to implant but must be within 60 days of implant
  - No data from the OR should be used in the Pre-Implant Form
  - The quality of life and trailmaking data needs to be collected within 30 days implant
- Hemodynamics
  - The general hemodynamics should be collected at the time of the Swan hemodynamics



Pre-implant Form

Patient Information

Admission Date for This Hospitalization

ST= ○ Not Applicable, Patient Still Hospitalized
○ Unknown

Height
Enter the height of the patient at the time of implantation in inches or centimeters.

in
cm

Weight
Enter the weight of the patient at the time of implantation in the appropriate space, in pounds or kilograms.

lbs
kg

BSA

BMI

BloodType

○ O
○ A
○ B
○ AB
○ Unknown

Payor

☐ Government Health Insurance
☐ Commercial Health Insurance
☐ Health Maintenance Organization
☐ Non-U.S. Insurance
☐ None / Self
☐ Unknown

Medical Support Status

Current Device Strategy at time of implant
This should be determined in conjunction with the heart failure cardiologist and surgeon at the time of the implant. This determination will be re-visited and recorded at 3 months, 6 months, and every 6 months thereafter.

○ Bridge to Recovery
○ Rescue Therapy
○ Bridge to Transplant (patient currently listed for transplant)
○ Possible Bridge to Transplant - Likely to be eligible
○ Possible Bridge to Transplant - Moderate likelihood of becoming eligible
○ Possible Bridge to Transplant - Unlikely to become eligible
○ Destination Therapy (patient definitely not eligible for transplant)
○ Other, specify

List Date for Transplant

ST= ○ Unknown

Enter UNOS waitlist ID number

ST: ○ Unknown

Time since first cardiac diagnosis
The length of time that the patient had any known cardiac diagnosis. For example, the time since the patient had a myocardial infarction, congenital heart disease was noted or the patient was noted to have heart failure.

○ < 1 month
○ 1 month - 1 year
○ 1-2 years
○ > 2 years
○ Unknown

Number of cardiac hospitalizations in the last 12 months

○ 0-1
○ 2-3
○ 4 or more
○ Unknown

Pre-implant Form

History of Cardiac Arrhythmia
- (●) Yes
- ( ) No
- ( ) Unknown

If yes, check all that apply
- [ ] Atrial Fibrillation (paroxysmal or chronic)
- [ ] Atrial Flutter
- [ ] Other Atrial
- [ ] Ventricular Tachycardia
- [ ] Ventricular Fibrillation
- [ ] History of ICD discharge or history of sudden cardiac death
- [ ] Other Ventricular

Current ICD device in place?
- (●) Yes
- ( ) No
- ( ) Unknown

If yes:
- ( ) ICD Only
- ( ) CRT Only
- ( ) ICD/CRT

Primary Cardiac Diagnosis
Select primary reason for cardiac dysfunction

Prior Cardiovascular Intervention (non-surgical)
Select all non-surgical interventions that the patient has had prior to this implant hospitalization.
- [ ] Percutaneous Coronary Intervention
- [ ] Permanent Pacemaker
- [ ] Prior medical history of ICD (if pt. currently has ICD in place, please document in question 'Current ICD Device in place?' in medical support status section and do not duplicate here).
- [ ] Prior medical history of CRT (if pt. currently on CRT, please document in question 'Current ICD Device in place?' in medical support status section and do not duplicate here).
- [ ] CardioMEMS
- [ ] Mitraclip
- [ ] TAVR
- [ ] Other, Specify
- [ ] Unknown
- [ ] None

Prior medical history of dialysis?
- ( ) Yes
- ( ) No
- ( ) Unknown

Prior Cardiovascular Intervention (surgical)
Select all cardiac operations that the patient has had prior to this implant hospitalization.
- [ ] None
- [ ] CABG
- [ ] Aneuryomectomy (DOR)
- [ ] Aortic Valve replacement / repair
- [ ] Mitral valve replacement / repair
- [ ] Triscuspid replacement /repair
- [ ] Congenital cardiac surgery
- [ ] LVAD, Temporary
- [ ] LVAD, Durable implantable
- [ ] RVAD, Durable implantable
- [ ] RVAD, Temporary
- [ ] TAH
- [ ] Previous heart transplant
- [ ] Previous ECMO
- [ ] Complex Aortic Surgery
- [ ] Unknown
- [ ] Other, specify (INCLUDE ONLY OPERATIONS ACTUALLY PERFORMED ON HEART OR GREAT VESSELS)

Pre-implant Form

Clinical Events and Interventions DURING Implant Hospitalization

Clinical Events and Interventions this hospitalization (Pre-implant)

Pertaining to this current hospitalization, select all events and interventions that occurred.

- [ ] Cardiac arrest
- [ ] Dialysis
- [ ] Intubation/Ventilator
- [ ] Myocardial Infarction
- [ ] Positive blood cultures
- [ ] Major Infection
- [ ] IABP
- [ ] Ultrafiltration
- [ ] Feeding tube
- [x] ECMO
- [ ] CABG
- [ ] Aortic Valve replacement / repair
- [ ] Mitral valve replacement / repair
- [ ] Congenital cardiac surgery
- [ ] LVAD, Temporary
- [ ] RVAD, Durable implantable
- [ ] TAH
- [ ] Percutaneous Coronary Intervention
- [ ] Permanent Pacemaker
- [ ] CardioMEMS
- [ ] Mitraclip
- [ ] TAVR
- [ ] Unknown
- [ ] None
- [ ] LVAD, Durable implantable
- [ ] RVAD, Temporary

ECMO: Present at the time of durable MCS device implant

- ○ Yes
- ○ No
- ○ Unknown

ECMO: Approach to Insertion

ECMO: Extracorporeal membrane oxygenation

ECMO: Inflow

ECMO: Outflow

Total Number of days on ECMO

ST:

Pre-implant Form

Is this implant the primary MCSD (LVAD or TAH) for this patient?

- ○ Yes
- ○ No

The INTERMACS® Patient Profiles are required at pre-implant and at all times when an implant occurs even if this is NOT the primary LVAD or TAH implant.

INTERMACS® Patient Profile at time of implant

Select one. These profiles will provide a general clinical description of the patients receiving primary LVAD or TAH implants. If there is significant clinical change between the initial decision to implant and the actual implant procedure, then the profile closest to the time of implant should be recorded. Patients admitted electively for implant should be described by the profile just prior to admission.

- ○ 1 "Critical cardiogenic shock" describes a patient who is "crashing and burning", in which a patient has life-threatening hypotension and rapdily escalating inotropic pressor support (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
- ○ 2 "Progressive decline" describes a patient who has been demonstrated "dependent" on inotropic support but nonetheless shows signs of continuing deterioration (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
- ○ 3 "Stable but inotrope dependent" describes a patient who is clinically stable on mild-moderate doses of intravenous inotropes (or has a temporary circulatory support device) after repeated documentation of failure to wean without symptoms (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
- ○ 4 "Resting symptoms" describes a patient who is at home on oral therapy but frequently has symptoms of congestion at rest or with ADL. (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
- ○ 5 "Exertion Intolerant" describes a patient who is comfortable at rest but unable to engage in any activity, living predominantly within the house or household (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
- ○ 6 "Exertion Limited" also describes a patient who is comfortable at rest without evidence of fluid overload, but who is able to do some mild activity (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)
- ○ 7 "Advanced NYHA Class 3" describes a patient who is clinically stable with a reasonable level of comfortable activity, despite history of previous decompensation that is not recent (see the Site Users Guide, Section II. 2.4 Pre-Implant Form, INTERMACS Patient Profiles for more details)

Pre-implant Form-Labs

- All within 60 days of implant
- ‘Not done’ should be used if the lab was not drawn within the 60 days of implant
- ‘Unknown’ should be used if the reported value is outside of the parameters/range or contains a non-numeric component such as >
- Care Everywhere results are acceptable as long as they are within 60 days of implant
- Lupus Anticoagulant if this is positive continue to mark yes on every follow-up form

Pre-implant Form-Quality of Life, Exercise Function, and Trailmaking

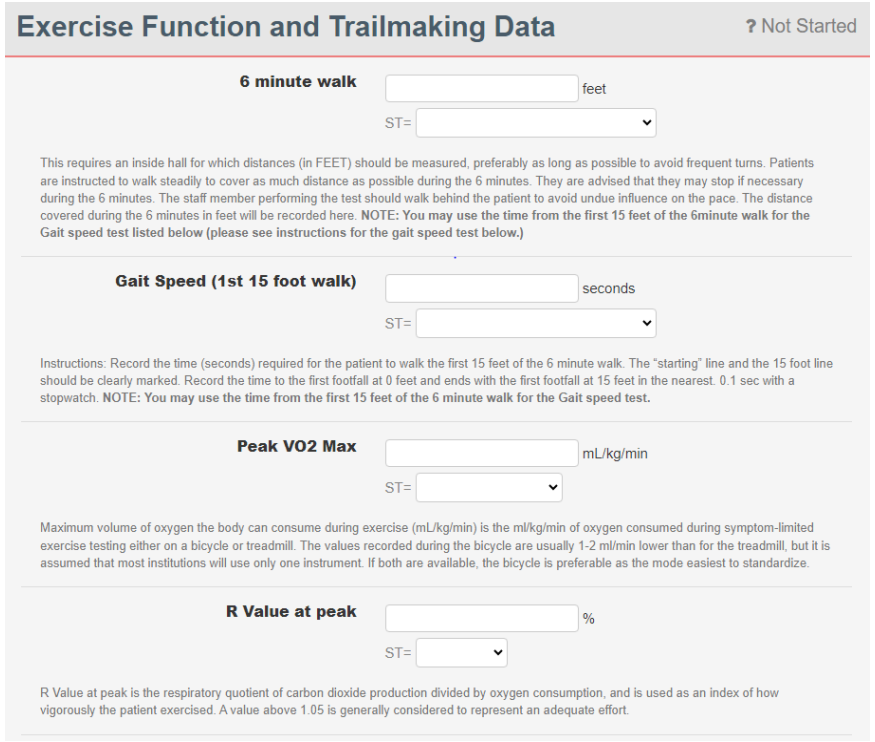
- QOL forms can be found on https://intermacs.kirso.net/intermacs-documents/
  - Appendix F – Quality of Life Questionnaires

    EQ-5D: Please contact the **DCC** for a copy of the EQ-5D survey

    English Adult Quality of Life Questionnaire
    - **Pre-Implant QoL Questionnaire**
    - **Post Implant QoL Questionnaire**

    Spanish Adult Quality of Life Questionnaire
    - **Pre-Implant QoL Questionnaire**
    - **Post Implant QoL Questionnaire**

- Make sure you are
  - Keeping hard copies of QoL forms
  - Scanning them into the medical record



Exercise Function and Trailmaking Data ? Not Started

6 minute walk _____ feet

ST= ▾

This requires an inside hall for which distances (in FEET) should be measured, preferably as long as possible to avoid frequent turns. Patients are instructed to walk steadily to cover as much distance as possible during the 6 minutes. They are advised that they may stop if necessary during the 6 minutes. The staff member performing the test should walk behind the patient to avoid undue influence on the pace. The distance covered during the 6 minutes in feet will be recorded here. **NOTE: You may use the time from the first 15 feet of the 6minute walk for the Gait speed test listed below (please see instructions for the gait speed test below.)**

Gait Speed (1st 15 foot walk) _____ seconds

ST= ▾

Instructions: Record the time (seconds) required for the patient to walk the first 15 feet of the 6 minute walk. The "starting" line and the 15 foot line should be clearly marked. Record the time to the first footfall at 0 feet and ends with the first footfall at 15 feet in the nearest. 0.1 sec with a stopwatch. **NOTE: You may use the time from the first 15 feet of the 6 minute walk for the Gait speed test.**

Peak VO2 Max _____ mL/kg/min

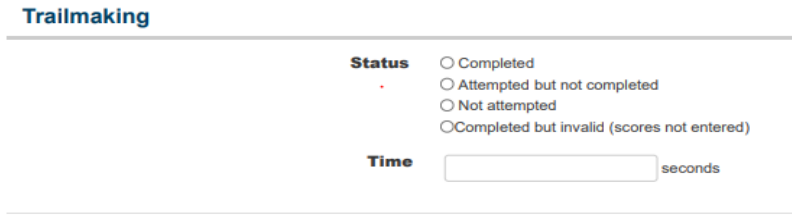
ST= ▾

Maximum volume of oxygen the body can consume during exercise (mL/kg/min) is the ml/kg/min of oxygen consumed during symptom-limited exercise testing either on a bicycle or treadmill. The values recorded during the bicycle are usually 1-2 ml/min lower than for the treadmill, but it is assumed that most institutions will use only one instrument. If both are available, the bicycle is preferable as the mode easiest to standardize.

R Value at peak _____ %

ST= ▾

R Value at peak is the respiratory quotient of carbon dioxide production divided by oxygen consumption, and is used as an index of how vigorously the patient exercised. A value above 1.05 is generally considered to represent an adequate effort.



Trailmaking

Status *
- ○ Completed
- ○ Attempted but not completed
- ○ Not attempted
- ○ Completed but invalid (scores not entered)

Time _____ seconds

Pre-implant Form-Comorbidities

Severe Diabetes
Defined as a Hemoglobin A1c greater than 8 mg/dl or associated with diabetic nephropathy, vasculopathy, oculopathy

- ○ Yes
- ○ No
- ○ Unknown

Prior Sternotomy

- ◉ Yes
- ○ No
- ○ Unknown

If yes, how many

ST:

Chronic Lung Disease Definition: Indicate whether the patient has chronic lung disease, and the severity level according to the following classification:

- Mild: FEV1 60% to 75% of predicted or on chronic inhaled or oral bronchodilator therapy.
- Moderate: FEV1 50% to 59% of predicted or on chronic oral/systemic steroid therapy aimed at lung disease.
- Severe: FEV1 < 50% or Room Air pO2 < 60 or pCO2 > 50.
- CLD present, severity not documented.
- Unknown

Time Frame: Do not use values obtained more than 12 months prior to the date of surgery.
Spirometry results that have not been interpreted by a pulmonologist may be used to quantify chronic lung disease.

Chronic Lung Disease

- ○ Yes
- ○ No
- ○ Unknown

Pulmonary Hypertension Definition: Indicate whether there is physician documentation of Pulmonary Hypertension as documented by:

- Right heart catheterization: mean pulmonary arterial pressure (PAP) > 25 mmHg at rest
- Echocardiographic diagnosis: PA systolic pressure (PASP) >50 mmHg
- Mean Pulmonary Artery Pressure greater than 25mmHg obtained from most recent right heart catheterization of right ventricular systolic pressure greater than 50mmHg obtained from the most recent right heart catheterization or most recent echocardiogram

Psychosocial Issues
NOTE: Smoking History has been moved to this section.

This section includes, substance abuse disorders along with a detailed smoking history. Please read this section thoroughly and check the boxes accordingly.

- ◉ Yes
- ○ No
- ○ Unknown

If yes, check all that apply

- ☐ Depression
- ☐ History of Severe Depression
- ☑ Alcohol Abuse
- ☐ Limited Cognition
- ☐ Limited Family Support
- ☐ Noncompliance
- ☐ History of Narcotic Dependence
- ☐ Active Illicit Drug Use
- ☑ History of Smoking
- ☐ Other Specify

Smoking

- ○ Remote use (more than 3 months ago)
- ○ Recent use (within 3 months)
- ○ Unknown

Alcohol Abuse

- ○ Remote use (more than 3 months ago)
- ○ Recent use (within 3 months)
- ○ Unknown

Implant Form

Durable Implantable VAD Support

Device type: LVAD

Approach to insertion:

LVAD device brand: HeartMate III

LVAD: Serial Number:

ST:

LVAD: cannulae location-inflow:

LVAD: cannulae location-outflow:

Associated findings
Surgical observations or Intraoperative TEE

- ☐ PFO / ASD
- ☐ Aortic Insufficiency
- ☐ Mitral insufficiency
- ☐ Tricuspid Insufficiency
- ☐ None

Is the VAD implant occurring in the setting of a failed cardiac operation (same operation or hospitalization)?

- ○ Yes
- ○ No

Concomitant surgery
Planned or accompanying LVAD procedure

- ☐ None
- ☐ ASD closure
- ☐ PFO closure
- ☐ CABG
- ☐ VSD closure
- ☐ Congenital cardiac surgery, other
- ☐ Aortic Valve Procedure
- ☐ Aortic Valve Surgery - Replacement - Biological
- ☐ Aortic Valve Surgery - Replacement - Mechanical
- ☐ Mitral Valve Surgery - Repair
- ☐ Mitral Valve Surgery - Replacement - Biological
- ☐ Mitral Valve Surgery - Replacement - Mechanical
- ☐ Tricuspid Valve Surgery - Repair - DeVega
- ☐ Tricuspid Valve Surgery - Repair - Ring
- ☐ Tricuspid Valve Surgery - Repair - Other
- ☐ Tricuspid Valve Surgery - Replacement - Biological
- ☐ Tricuspid Valve Surgery - Replacement - Mechanical
- ☐ Tricuspid Valve Surgery - Excision
- ☐ Pulmonary Valve Surgery - Repair
- ☐ Pulmonary Valve Surgery - Replacement - Biological
- ☐ Pulmonary Valve Surgery - Replacement - Mechanical
- ☐ Left ventricular aneurysmectomy
- ☐ Other, specify
- ☐ Arrhythmia surgery (ablation)
- ☐ Ligation of left atrial appendage
- ☐ Temporary MCS Removal (ECMO, IABP removal documented here)
- ☐ Extracorporeal Membrane Oxygenation (ECMO Insertion)

Was the patient put on Cardiopulmonary Bypass Pump?

- ○ Yes
- ○ No

Surgery Time
Enter total surgery time from primary incision to closure

minutes

ST:

Status of incision at end of procedure
Select one

- ○ Open (i.e., delayed sternal closure)
- ○ Closed
- ○ Unknown

*Use the surgeon op-note, intra-op TEE and perfusion note for this data

Additional Operative Details

Was left ventricular thrombus present at operation?
If you select Yes, you are confirming that the left ventricular thrombus was removed.
- ○ Yes
- ○ No
- ○ Unknown

Was left atrial appendage clot present at operation?
- ○ Yes
- ○ No
- ○ Unknown

Was palpable atherosclerotic plaque or calcified plaque present in the ascending aorta or aortic arch at operation?
- ○ Yes
- ○ No
- ○ Unknown
- ○ Did not evaluate

Was a patent foramen ovale present at operation?
- ○ Yes
- ○ No
- ○ Unknown

Were traction/stabilization sutures utilized to optimize (inlet cannula) LVAD pump position?
- ○ Yes
- ○ No
- ○ Unknown

Which deairing techniques were utilized at device implantation?
Select all that apply
- ☐ None
- ☐ Use of CO2 to flood the operative field
- ☐ Needle evacuation of air from the outflow graft
- ☐ Aortic root vent
- ☐ Left ventricular vent (Right superior pulmonary vein)
- ☐ Unknown
- ☐ Other, specify

Was the LVAD procedure complicated by vasoplegia (MAP <60 mmHg requiring> 1 vasopressor to treat or unexpected ECMO) during or following cardiopulmonary bypass in the operating room?
- ○ Yes
- ○ No
- ○ Unknown
- ○ Not Applicable

*Use the surgeon op-note for this data

Implant Hemodynamics

(At the start of procedure following induction of anesthesia but prior to skin incision):

Heart rate _____ beats per min
ST: ▾

Systolic blood pressure
(millimeters of mercury) should be determined from auscultation or arterial line if necessary.
_____ mmHg
ST: ▾

Diastolic blood pressure
(millimeters of mercury) should be determined from auscultation or arterial line if necessary
_____ mmHg
ST: ▾

Intraoperative Transfusions

Intraoperative transfusions are not counted as a major bleeding event

Were intraoperative blood products or clotting factors given to treat bleeding/coagulopathy?
- ◉ Yes
- ○ No
- ○ Unknown

Check any transfusions or clotting factor replacements administered:
- ☐ Packed RBC
- ☐ Prothrombin Complex concentrate
- ☐ Factor VII
- ☐ Platelets
- ☐ Cryoprecipitate
- ☐ Fresh frozen plasma
- ☐ Other
- ☐ Unknown

* Use the anesthesia note for this data

Contact Us

Nancy Honeycutt, BSN, RN

- *STS National Database Manager, Intermacs and Pedimacs*
  nhoneycutt@sts.org

Patricia Potter, BSN, RN

- *Intermacs Data Warehouse Director of Clinical Affairs*
  patricia.potter@kirso.net

Brandon Singletary, PhD

- *Intermacs Data Warehouse Director of Data Reporting and Visualization; Epidemiologist*
  brandon.singletary@kirso.net

Open Discussion

Please use the Q&A Function.

We will answer as many questions as possible.

We encourage your feedback and want to hear from you!

THANK YOU FOR JOINING!