

Society of Thoracic Surgeons
Adult Cardiac Surgery Database

Quality Improvement Series:
Decreasing Blood Usage

Optimizing Blood Utilization in Cardiac Surgery

Dr. Kevin Brady
Chief Cardiac Surgery
Surgical Director MCS
St. Joseph's Hospital and Medical Center
Phoenix, Arizona

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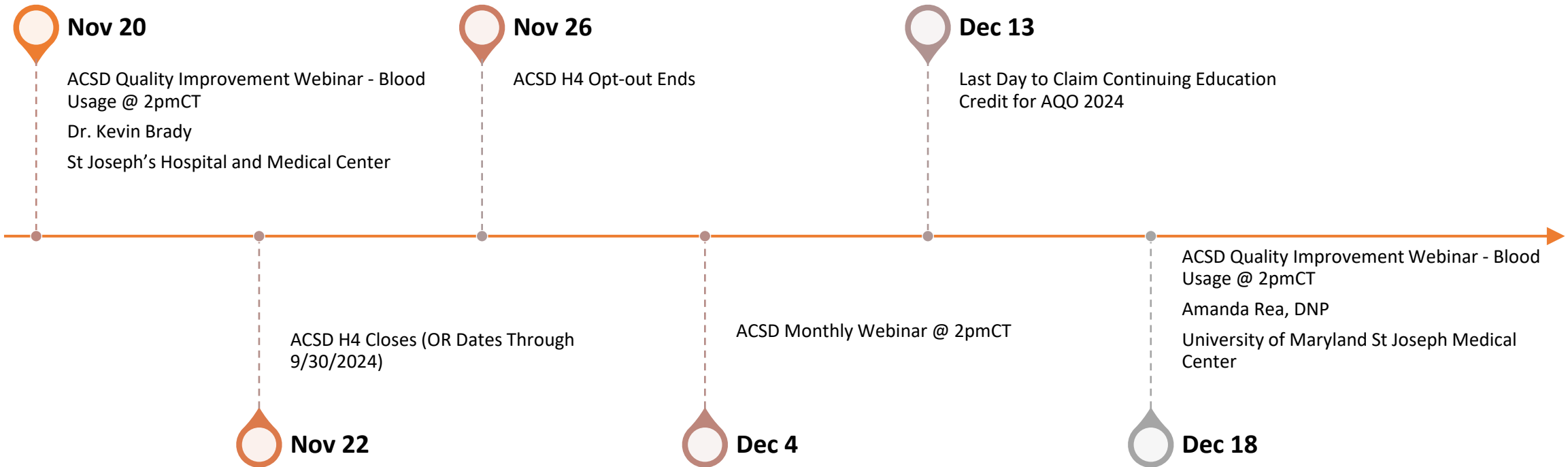
Agenda

WELCOME AND
INTRODUCTIONS

STS UPDATES

OPTIMIZING BLOOD
UTILIZATION IN CARDIAC
SURGERY
DR. KEVIN BRADY
ST JOSEPH'S HOSPITAL AND
MEDICAL CENTER

Important Dates



Optimizing Blood Utilization in Cardiac Surgery

Kevin Brady, MD
Chief Cardiac Surgery
Surgical Director MCS
St Joseph's Hospital and Medical Center
Phoenix AZ

Patient blood management is the strategy employed to reduce unnecessary transfusions using evidence based practice and a multidisciplinary approach with all members of the healthcare team involved in cardiac surgery at our institutions.

Commonspirit utilizes two hospitals to provide cardiac surgery to the greater metropolitan Phoenix area. These two hospitals provide services for nine surrounding hospitals and micro hospitals. Both institutions provide advanced cardiac care including ECMO, structural heart procedures, academic teaching, and comprehensive multidisciplinary conferences to review complex cases. One institution is an inner city teaching hospital with additional services of durable LVAD, congenital heart disease surgery, and concomitant cardiac surgery with lung transplantation.

The systematic reduction of blood products began in 2007 and was adopted by the second institution in 2017 resulting in a 75% reduction in blood product use within two years.

Preoperative Evaluation and Management

40-50% of CABG patients are admitted with ACS and NSTEMI requiring revascularization prior to discharge

Erythropoietic agents are not used due to efficacy, risk, and cost

Hold antiplatelet agents (clopidogrel, ticagrelor) five days before surgery if permissible

Iron infusion-raises Hgb but rarely impacts transfusion rates. Oral iron ineffective in short term

Surgical Technique

- Meticulous hemostasis
- Best practices for re operative surgery and evaluating chest tube output
- Antifibrinolytics-aminocaproic acid, tranexamic acid
- DDAVP in limited patients
- Viscoelastic testing
- Retrograde Autologous Priming
- Ultrafiltration
- Off pump CABG

Permissive Anemia
Accept lower Hgb level in
stable patients!

The Cardiac Surgery
Team must “own” the
transfusion orders

Surgeon attention to hemostasis

Reduce hemodilution

Anemia management without
transfusion

Cardiac surgery team to control all
transfusion orders

Ongoing data review and education
of multidisciplinary team

Provider and institutional review

The ability to reduce blood and blood product transfusions requires a methodical and science based approach. It requires collaboration of multiple health providers but like many journeys, it starts with one step by one person.

Thank you.

Open Discussion

Please use the
raise-hand
function.

Please use the
Q&A Function.

We will answer as
many questions as
possible.

We encourage
your feedback and
want to hear from
you!

Contact Information

- Carole Krohn, Director, STS National Database
 - ckrohn@sts.org
- Nancy Honeycutt, STS National Database Manager, ACSD, Intermacs/Pedimacs
 - nhoneycutt@sts.org
- STSDB@sts.org
 - Database Operational Questions (Billing, Contracts, Contacts)
- [STSDB Helpdesk@sts.org](mailto:STSDB_Helpdesk@sts.org)
 - IQVIA/Database Platform Questions (Uploader, DQR, Missing Variable, Dashboard, Password and Login)



Thank You for Joining!

If your site has had success implementing a blood conservation project and decreasing blood usage, we invite you to share your story with us on an upcoming ACSD QI Series Webinar!



