Reducing Emergency Release Blood Product Ordering on Labor and Delivery: A Quality Improvement Initiative

Chloe Stanwyck, MD MS
Obstetric Anesthesiology Fellow

Kelly Fedoruk, MD, FRCPC
Assistant Professor

Stanford MEDICINE
School of Medicine

Division of Obstetric Anesthesiology and Maternal Health

SPEAKER DISCLOSURE

I have nothing to disclose.

The Problem

>50% of blood products sent to L&D are MTP / emergency release

Waste

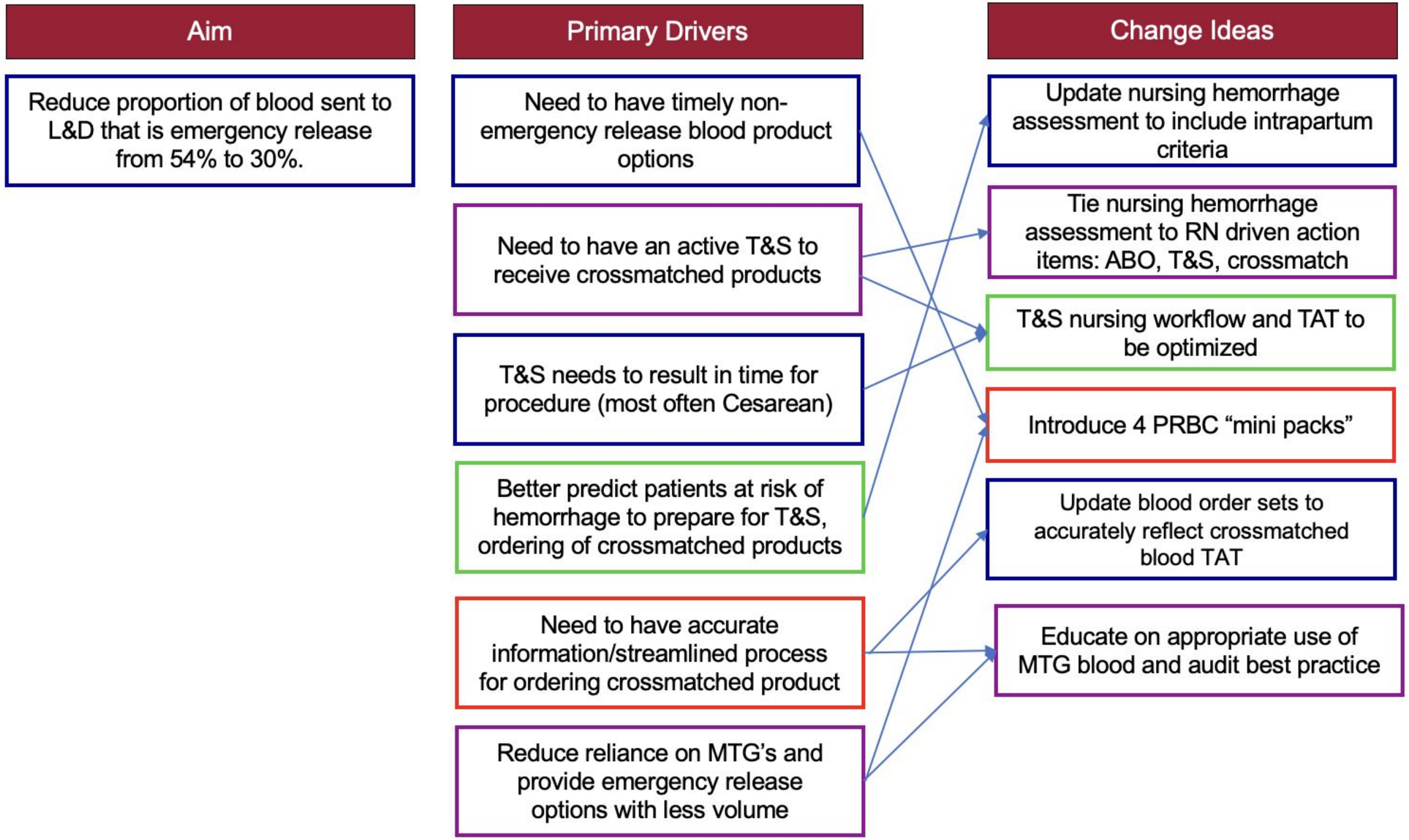
>95% of patients on L&D receiving blood receive <=4 units pRBC

84% of patients only require 1-2 units pRBC

Goal

Implement a quality improvement (QI) initiative to improve hemorrhage preparedness in order to reduce emergency release MTP blood utilization on our L&D unit to ≤30%.

Key Drivers


Aim
Reduce proportion of blood sent to L&D that is emergency release from 54% to 30%.
Primary Drivers
Need to have timely non-emergency release blood product options
Need to have an active T&S to receive crossmatched products
T&S needs to result in time for procedure (most often Cesarean)
Better predict patients at risk of hemorrhage to prepare for T&S, ordering of crossmatched products
Need to have accurate information/streamlined process for ordering crossmatched product
Reduce reliance on MTG's and provide emergency release options with less volume
Change Ideas
Update nursing hemorrhage assessment to include intrapartum criteria
Tie nursing hemorrhage assessment to RN driven action items: ABO, T&S, crossmatch
T&S nursing workflow and TAT to be optimized
Introduce 4 PRBC "mini packs"
Update blood order sets to accurately reflect crossmatched blood TAT
Educate on appropriate use of MTG blood and audit best practice

Interventions

Completed

- Corrected quoted turnaround times for crossmatched blood products in Epic order sets
- Education: 3 nursing staff meetings, OB anesthesia division meeting and Grand Rounds, 2 M&M presentations, 4 LIT meetings and 4 L&D MTD meetings

In Process

- Updating nursing hemorrhage risk assessment protocols
- Implementing a 4-unit pRBC "mini-pack" as an alternative to MTP

Implications

- Nursing time spent returning unused blood products costs $10,710-$12,600 annually
- Intangible costs of wasting donated blood products / goodwill of donors

Conclusions

- Key drivers identified; interventions underway
- Future directions:
  - Tracking intervention implementation
  - Assessing impact on emergency release blood product utilization rates