

CSTM Conference

ST JOHN'S NEWFOUNDLAND

MAY 29-JUN 1, 2025

Conference Highlights According to Heather



The Workshops

- Held on Thursday before the main conference the workshops are an excellent educational resource.
- Smaller groups with varying topics, well moderated and most had three presenters.
- Topics included:
 - Nightmares in Transfusion medicine
 - Immune Transfusion reactions
 - New products: What to do when you are expecting
 - Complex serological case studies
 - Standards workshop- Inspections
 - Genomics Workshop

The Conference

- The main body of the conference always starts with the welcome and in Newfoundland's case the keynote speaker.
- Sessions run for 90 minutes with breaks and lunch
- First day highlight was Treating Immune platelet disorders mostly because I find the topic fascinating and Dr Prokopchuk was one of the presenters and she is an excellent speaker
- Poster presentations and Exhibitors reception followed in the evening. Posters are also one of my favorites as you get to grill the authors of the posters. Kudos to Kim Thomson and Dr Price on having excellent posters from Saskatoon.

Day 2

- The CSTM Annual general Meeting is held over breakfast and highlights all the financials and achievements the board has done over the last year.
- Starts with the various CSTM awards and is always impressive
- Another full day of sessions
- Posters are still up for conference participants to get a better look at them

Day 3

- Favorite session of the morning was Hemovigilance in Canada, this is my wheelhouse and the sun setting of the TTISS program brought a lot of lively discussion from those in attendance of this session
- This is a half day and I participated in the final session of the conference which was about the Diverse roles of non-MD staff supporting Transfusion Medicine
- Moderated by Becky Rock we had a great variety of TM professionals who had a lot of similar struggles, challenges and rewards for the roles they hold. As my last conference before I retire enjoyed meeting up with colleagues across Canada and meeting some very warm and welcoming people from Newfoundland.



The Extracurricular Activities



CSTM Conference Highlights Sheila

- one of my favorite sessions was Compliance with Krever Recommendations on the era iof out of hospital blood product infusion therapy in British Columbia
- Why? Because the tainted blood scandal and the Krever Commission is why I became a laboratory technologist
- The Exhibitor's had a lot of interesting booths with a wide variety of all things transfusion. Plus a lot of free swag!
- Heather says I have to say her panel discussion was also very informative

Volunteering has its rewards

Sharing our registration system from the Saskatoon conference with St John's and then offering to volunteer for a shift at their registration has its perks. Met some great people and got a new lanyard



Saskatchewan Health Authority

Emergency red blood cell utilization in Saskatchewan hold-blood sites: Results of a 5-year audit

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BACKGROUND

- Understanding the utilization volume and appropriateness of emergency group O red blood cell (RBC) transfusion is critical to ensure appropriate stewardship of this limited resource.
- Facilities designated as "hold Blood" sites within our provincial health authority only stock group O RBC emergency use, no pre-transfusion testing is performed onsite. (Figure 1)
- Historically, RBC units were made available in several rural sites due to geographic distribution and proximity to industrial sites.
- An audit of uncrossmatched (UxM) RBC utilization has not been performed since introduction of RBC to "Hold Blood" sites.
- The purpose of this quality improvement audit was to evaluate the volume and appropriateness of emergency RBC units transfused at "Hold Blood" sites to ensure evidence-based rural RBC inventory optimization and local transfusion practices.

Figure 1. The Saskatchewan "Hold Blood Map"
denoting site pre-transfusion testing capabilities and stating monthly transfusion rates. "Hold Blood" sites are denoted by turquoise dots.

DESIGN AND METHODS

- Local Research Ethics Board approval and Operational Approval was obtained.
- We completed a retrospective manual paper-based audit of emergency RBC transfusions from 13 Saskatchewan Health Authority "Hold Blood" sites carrying O NEG RBC between Jan 1, 2018-Dec 31, 2022.
- La Ronge was the only site to hold both O POS and O NEG blood inventory and became a "Hold Blood" site as of Dec 2022 when its O NEG support became unreliable.
- Abbotsford Health Authority site was not included due to UxM RBC recipient patient transfusion logs stating RBC disposition and copies of UxM RBC recipient patient charts were photocopied by rural site health records staff and documents transferred to secure, central urban hospital health records location for review.
- Data was collected in deidentified format and included:
 - Patient demographics;
 - Indication for transfusion; and
 - Available pre-transfusion hemoglobin (Hb).
- Group O RBC Disposition data was obtained from Canadian Blood Services (CBS).

RESULTS

- Charts were available for 13/14 (93%) recipients of UxM RBC transfusion events.
- Table 1: Site RBC resources demographic

Site	City/Town	Population	RBC Units Available
High-volume sites	Regina	~240,000	~100,000
Low-volume sites	Various	< 10,000	< 10,000

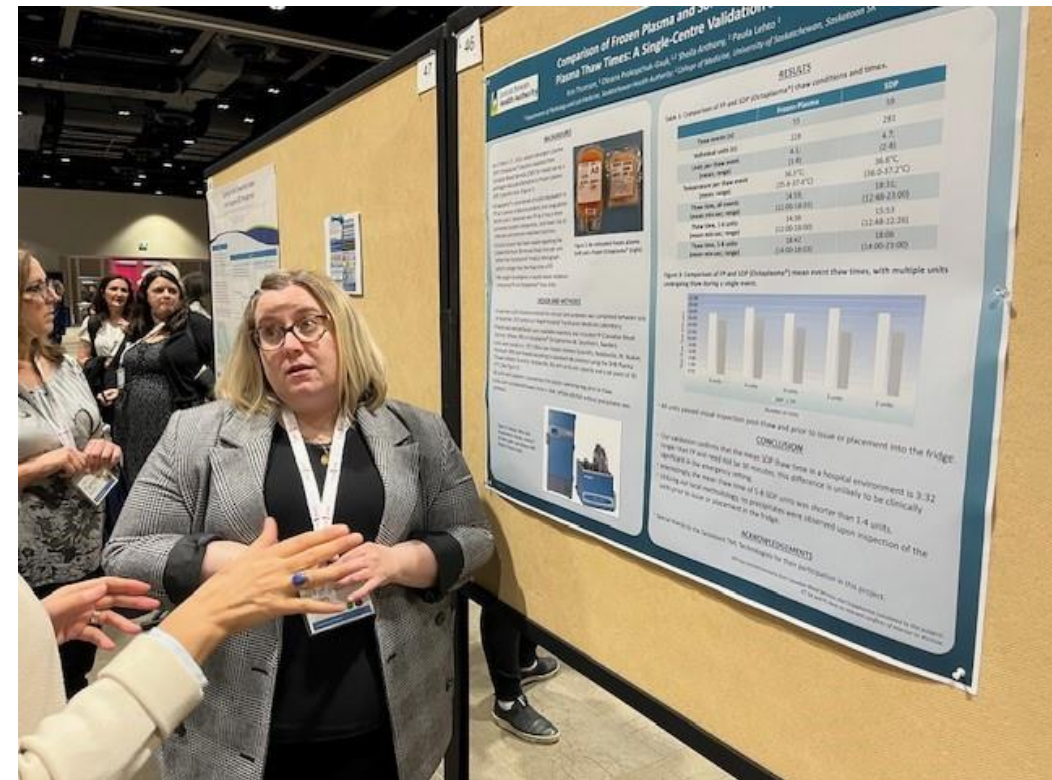
Figure 2: Relative to site RBC resources

Table 2: Summary of site UxM RBC transfusion events and RBC disposition

Site	Total Events	Units Transfused	Units Available	Units Expired	Units Discarded
Regina	1,234	1,234	1,234	0	0
Other Sites	567	567	567	12	12

CONCLUSION

- These data support the need to re-evaluate RBC stock levels at "Hold Blood" sites, particularly those with transfusion rates of less than 100 units per year, to optimize use of RBC units and reduce waste.
- Optimization efforts must include La Ronge's O NEG support becoming reliable.
- Important considerations to support reducing risk RBC stock levels include frequency assessment of the inventory, and ensuring timely RBC replacement.



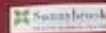
- Add quality indicators to MHP deliverable procedure for real-time data collection

So many great posters!

30

Exploring Physician-related Transfusion Errors reported to the Transfusion Error Surveillance System (TESS) from 2016-2023: A single center study

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BACKGROUND

- Blood transfusions involve a multi-step process with an interdisciplinary team
- Transfusion errors can lead to adverse transfusion events, impacting patient care
- TESS: Transfusion Error Surveillance System reports and tracks error events in Canada since 2006
- Previous studies have examined transfusion-related error types and frequency, however, an analysis of physician-related transfusion errors has not been performed

OBJECTIVE

To describe physician-related transfusion errors at Sunnybrook, their harms and consequences, and how the COVID-19 pandemic may have influenced error trends

METHODS

- This was a retrospective study of errors reported to TESS from 2016 to 2023, focusing on clinical service transfusion errors and errors where the primary individual involved was a physician
- All transfusion error events were investigated, detailed and recorded through TESS by trained blood bank laboratory technologists
- Clinical service errors were categorized as involving:
 - Sample collection (SC)
 - Sample handling (SH)
 - Product request (PR)
 - Request for pickup (RP)
 - Unit transfusion (UT)
- Descriptive statistics were used to determine error rate trends across the years, types and consequences of errors, and details of patient harm cases

RESULTS



Figure 1. Breakdown of total events reported to TESS from 2016-2023 (n=2965)

- Between January 2016 and December 2023, 2965 total errors were reported to TESS
- 16153 (54%) were clinical service errors while 13597 (46%) were transfusion service errors
- 2670 (9%) of errors were physician-related errors
- Most physician-related transfusion errors were in Product Request and Sample Collection
- Most cases occurred in the Ward (27%), ICU (23%), and OR (19%)

Type of Clinical Error	Frequency (n)
Product request (PR)	1638 (61)
Sample collection (SC)	493 (18)
Unit transfusion (UT)	180 (7)
Sample handling (SH)	164 (6)
Request for pickup (RP)	45 (2)
Total	2670

Table 1. Physician-related Clinical service error frequency (n=2670)

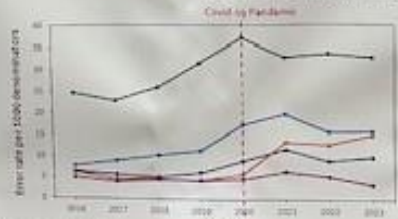


Figure 2. Overall Error Rate in Clinical Service errors from 2016-2023 (n=2965)

Patient harm cases: Causes and Consequences

Error code	Frequency (n)
PR004: Order not placed/incorrectly transcribed	13 (48)
PR006: Inappropriate order of blood product	13 (48)
UT025: Guidelines for product selection not followed	2 (7)
Total (n)	27

Table 2. Type of physician-related error for patient harm cases (n=27)

- 27 patients were harmed in physician-related transfusion errors
- 25 of 27 cases involved PR errors
- 24 were medium severity and 3 were high severity

Consequence	Frequency (n)
Transfusion-associated circulatory overload (TACO)	20 (74)
Transfusion-related acute lung injury (TRALI)	3 (11)
Allergic reaction	1 (4)
Hyperkalemia	1 (4)
Other	2 (7)
Total	27

Table 3. Consequences of patient harm transfusion errors (n=27)

- 3 patients died within 30 days of discovering the error; 2 deaths were not deemed to be attributed to the error
- Analysis suggests that some harmful events such as TACO could be avoided (e.g. by decreasing transfusion rate or ordering diuretics for high-risk patients)

CONCLUSION

- Physician-related transfusion errors are responsible for 90% of cases that resulted in patient harm, despite making up only 9% of total errors
- Highlights the potential harm and preventable nature of these errors and offers opportunities to improve patient care

Abstracts are available to read the full text of the abstracts for this presentation and to view the full presentation. Funding was provided by the Sunnybrook Health Sciences Centre. The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada or the Ministry of Health and Long-Term Care (Ontario).

Food and Fun!!





We would like to thank the CSTM for their sponsorship to the St John's conference.