MUSC Health
Medical University of South Carolina

Blood Product Documentation Assurance

Resident Incentive Project - FY23

Department of Pathology and Laboratory Medicine

ABSTRACT

Transfusion medicine is responsible for preparing blood products that are administered by nursing. Timing, pertinent signs and symptoms, and notes regarding administration are all critical in the documentation of a blood product's life cycle, with broad implications ranging from patient safety to hospital revenue.

Without verifying that a blood product has been administered and finalized, the blood bank is unable to drop a product charge on the unit. With reimbursement of nearly $1000 per transfusion completion, this loss of revenue can approach $1.3 million in a one-month period.

Our goal was to increase blood product documentation compliance by **10%** in the Charleston division through direct contact, inquiry, and education for outstanding products.

METHODS

Using a Blood Product Administration Module (BPAM) in Epic Beaker, the transfusion medicine residents from November 2022 through February 2023 generated reports showing the number of blood products that were still outstanding but had finished transfusing for at least six hours. The nurse for the patient was then contacted, and a discussion regarding the barriers to documentation took place.

No minimum number of daily nursing contacts was established, but residents were encouraged to note barriers to documentation such as technical issues, or hesitancy to chart the product as completed after enough time had passed (Figure 1).

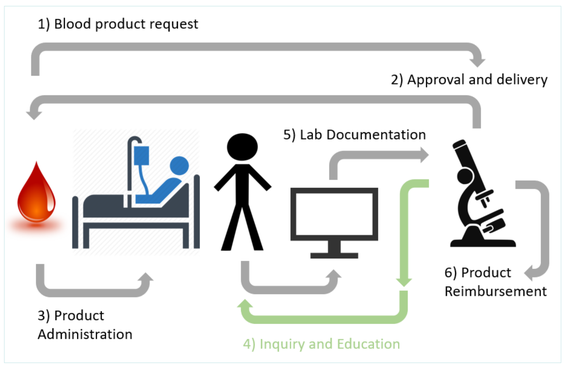

Figure 1. Stepwise life of a blood product with active intervention

RESULTS

Using the four months preceding our intervention as a control, we saw a 10.9% average increase in compliance for the Charleston division for completed blood product documentation (Table 1). Two hospitals in the Charleston division (Main and SJCH) did not reach the 10% increase individually, but compliance for all hospitals increased linearly with time. Total blood product usage declined for Main and ART, while increasing for SJCH (Figures 2 and 3).

Hospital	Compliance Average (four-month lookback)	Compliance Average (interventional)	Increase	Average Compliance Increase
Main	84%	92%	9.5%	**10.9%**
SJCH	86%	93.5%	8.7%	
ART	72.8%	83.3%	14.4%	

Table 1. Average product compliance before and during intervention

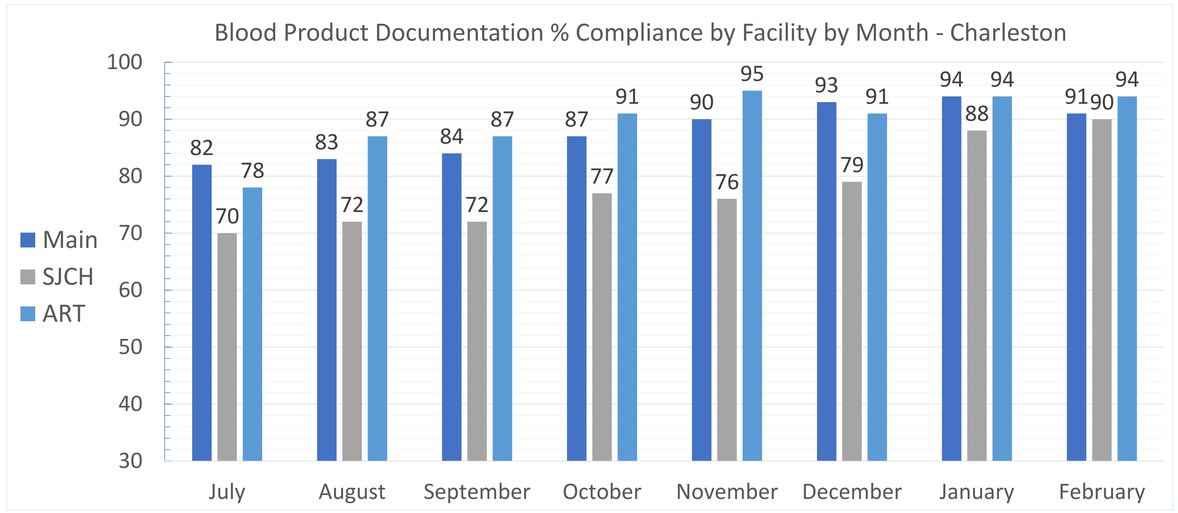

Figure 2. Compliance Percentage by Month

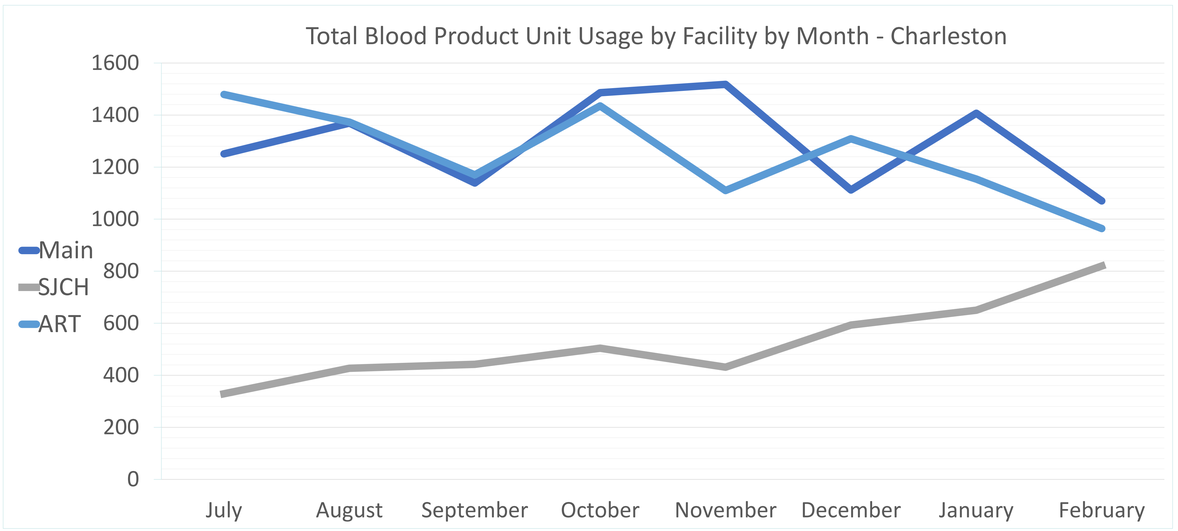

Figure 3. Total Product Usage by Month

CONCLUSIONS

Transfusion medicine residents were unfamiliar at the outset with the barriers that prevented nursing from completing product documentation in a timely manner. Some encounters showed that nurses were hesitant to chart a product as complete—even if that product was in fact completely transfused—if they were not the nurse who was present for the transfusion. Similarly, some nurses were hesitant or frankly unable to close out a transfusion if it had been more than 48 hours since the completion of the product. These technical limitations were reviewed and passed along to the appropriate channels to investigate further.

We learned from nursing that the act of changing documentation for products to "complete" at a later time risks altering the calculated ins and outs for the patient. In the ICU setting and elsewhere, these values are extensively monitored and any alteration or a prior product could unknowingly affect these numbers and subsequent patient care.

SUMMARY

We were successful in seeing an increase in blood product documentation compliance and met our goal of a 10% positive change. With thousands of products being ordered and administered in the Charleston division every month, this represents a significant impact on potential lost revenue for the hospital.

Several clinical considerations that were otherwise not apparent to us at the outset were brought to light, and we appreciate being able to work with MUSC nursing to learn from one another and advance patient care.

Though the intervention period will have ended with the conclusion our results herein, continued engagement could always be pursued further.

ACKNOWLEDGEMENT

We would like to extend our thanks to Trish Combs from MUSC Quality & Safety for her assistance with data retrieval and collation.