

CREATING A STREAMLINED BLOOD DOCUMENTATION WORKFLOW FOR APHERESIS PROCEDURES

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INTRODUCTION

Epic lacks a streamlined “out of the box” technical solution for documenting large volume apheresis procedures for red blood cell or fresh frozen plasma. This gap leads to clinicians using the paper-driven transfusion administration record. Paper workarounds bypass electronic safety checks and increases mental burden. This challenge provided an opportunity to use tools provided by Epic using a creative approach.

METHODS AND RESULTS

Ordering

Products are ordered with a transfusion indication of “red cell exchange” or “plasma exchange.” The delivery method selected is “blood bank to prepare cooler.”

Transfuse RBC (mLs): 1,200 mL
Routine, Transfuse 1,200 mL

Priority: Routine STAT

Transfuse: 1,200 mL 5 mL/kg 10 mL/kg 15 mL/kg

Transfusion indication:

- Acute Blood Loss with hemodynamic instability
- Symptomatic anemia
- Severe hemolytic anemia (hct < 18 or hgb < 6)
- Anticipation of Hematopoietic failure
- Pre-op transfusion for anticipated blood loss **Red cell exchange**
- ECMO pump prime or protocol
- Sickle cell disease

Has consent been obtained?
 Yes No In Progress

Delivery of blood product:

- Nurse to release when ready (MOST COMMON, use for all inpatient areas. DO NOT use for OR or for exchange transfusion)
- Send now via tube (Primarily used by OR or in urgent situations at VUMC only)
- Blood bank to prepare cooler (RESTRICTED to select procedural areas, i.e. OR, dialysis, ECMO, cath lab)**

This unique combination triggers the specialized workflow.

Releasing

The transfusionist retrieves the cooler from the blood bank. Next, the transfusionist counts the number of bags in the cooler and completes the task for numbers of products received.

APHERESIS START HERE - Generate Flowsheet Rows for Documentation

Ordered 09/22/22 1040
Transfuse RBC (mLs): 1,200 mL - Transfusion, Standing Count: 1 Occurrences, Prio: Routine, Status: Sent

Scheduled 09/22/22 1041
Task: How many bags of blood product did you receive from the blood bank? Status: Incomplete

Step 1: Activate Flowsheet Rows (From admission, onward)

Transfusions to release

Ordered	Transfuse RBC (mLs): 1,200 mL	Transfusion (0 of 1 released)	Release	Start
09/22/22 1040	Transfuse RBC (mLs): 1,200 mL	Transfusion (0 of 1 released)	Release	Unscheduled

The number of releases available dynamically updates based on the answer.

All flowsheets are released by clicking the “release” link.

Administration

The transfusionist scans each bag of blood for dual verification. The blood picker helps the user find the correct flowsheet group.

The transfusionist scans the patient's armband once during the mass dual sign. The “apheresis verify” MAR action is used for each product.

During administration, the transfusionist scans each bag and uses the “apheresis start” MAR action when starting a transfusion. Administrations can be performed in rapid succession.

Reporting

All products administered in Epic are available in “Chart Review” under a single parent order. Information also appears in the “Transfusion Dashboard”. Physical paper trails are eliminated.

CONCLUSION

This specialized workflow allows transfusionists to order, release, and document large volume transfusions in real time with precision. It has been validated to work in real world clinical scenarios. Two departments (7 South Dialysis and Doctor Office Towers 6) are currently using this workflow with the ability to scale if needed.

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