Requesting Blood Products in an Emergency

Several events at UCSF have highlighted the need to simplify the blood product ordering process and streamline communication with the blood bank regarding the release of products in emergent situations. Providers should be aware of important distinctions between the ordering of routine/STAT blood and activation of the Emergency Release and Massive Transfusion Protocols (MTP). Both emergency release and MTP require phone activation to the blood bank. An APEX order is required within 24 hours for regulatory purposes. Specific guidance is available regarding protocol-driven ordering for emergency release and MTP activation online from the UCSF transfusion service.

What happened?

A 65 year-old male underwent a surgical procedure. While recovering in the PACU, the patient became hypotensive and was taken back to the OR for a presumed retroperitoneal bleed. During surgery, he became profoundly coagulopathic requiring massive transfusion. Ultimately, he experienced a cardiac arrest and resuscitation attempts were unsuccessful.

A patient with known cirrhosis was admitted to the ICU with hypotension and tachycardia after paracentesis. Although he received albumin and blood products, resuscitation attempts were unsuccessful.

What went wrong?

During the review of the first case, it became apparent that multiple orders had been placed for blood product preparation, type and screen labs and to initiate the MTP. In addition, there was no single person whose designated role in the OR was to communicate the urgency of the situation with the blood bank. This led to confusion as to the number of products needed and how quickly. In addition, providers and staff were unfamiliar with the massive transfusion protocol.

In the ICU case, there was a delay in obtaining and administering blood products because of a lack of understanding about the procedure for activating the MTP (the blood bank must receive a phone call) and how MTP products are transported to the unit. In addition, the previous APeX workflow, which generated the pick-up slip for blood products, was complex (this has been simplified to require only patient labels). There was also a delay in getting the rapid infuser pump from the OR (rapid infusers are now located in the ED and ICUs).

Tips for Providers

Activating Emergency Release or MTP:
- requires a direct phone call to blood bank
- the person calling should use a pre-printed script when calling blood bank to activate protocols (located in code cart binders)
- the blood bank tech will prompt the person calling and read back to confirm important information
- a runner must be sent to the blood bank to pick up products with a patient label
- an order must be placed in APEX within 24 hours of activation of either emergency release or MTP

Emergency Release and MTP:
- emergency release is used to get a specific # of units of a specific product type: uncrossmatched RBCs (5 min), FFP or platelets units (10 min), and/or cryoprecipitate (15 min)
- MTP activates release of the following: 4 units of uncrossmatched RBCs, 4 units of FFP and 1 unit of platelets (RBCs ready in 5 min and other products in 10 min of activation phone call)
- more than one MTP cycle can be ordered at once

For Routine and STAT Blood Products:
- enter all transfusion orders in APEX order set
- select both prepare and transfuse if your intention is to imminently transfuse the patient
- for more information regarding transfusion of blood products, blood bank contact information, and the script for MTP and emergency release, click here