Table 8: Transfusion of Blood Components: Recommendations Based on Serial Laboratory Values

<table>
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<th>Component</th>
<th>Content</th>
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<th>Expected Change in Labs</th>
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| **Warm Fresh Whole Blood (WFWB)** | Same components in same percentages as blood loss | 400-500 mL | 1 unit WFWB replaces all components of blood loss in similar ratio without loss of individual component function from storage. 1 unit WFWB increases Hgb approximately 1 g/dL or Hct by 3%. | Hgb < 8.0 g/dL in bleeding patient.  
If patient stable and not bleeding, Hgb < 6.0 g/dL; or  
Hgb < 8.0 g/dL and patient is symptomatic. | Hgb 10 g/dL, or Hct 30% |
| **Packed red blood cells (PRBCs)** | Red blood cells, preservative and anticoagulant solutions may vary.  
Hct of packed cells: 50%-65%; contains approximately 42.5-80 g of hemoglobin; contains approx 147-278 mg of iron. | 128–240 mL red blood cells; plus contains average 50 mL donor plasma (range 20–150 mL); plus anticoagulant and preservative. | 1 unit PRBC increases Hgb approximately 1 g/dL or Hct by 3% (assumes pt not bleeding or hemolyzing). | Hgb < 8.0 g/dL in bleeding patient.  
If patient stable and not bleeding, Hgb < 6.0 g/dL; or  
Hgb < 8.0 g/dL and patient is symptomatic. | Hgb 10 g/dL, or Hct 30% |
| **Platelets** | Random Donor Platelets (RDP) should contain >5.5 x10^10 platelets in 50 mL plasma. Four to 10 RDPs are pooled prior to transfusion.  
Platelets Apheresis – Single Donor Platelets (SDP) should contain ≥3.0 x10^11 (average is 3.5-4.0 x 10^11 per bag) in 250 mL plasma.  
SDP are ready for transfusion – no thawing needed. | Platelets (RDP) - 50 mL plasma x number of RDP in the pool.  
Platelets Apheresis (SDP) - 250 mL of plasma. | For each RDP given – increase count 7,000-10,000/mm^3.  
For each SDP apheresis pack given – increase count 30,000-60,000/mm^3 | Platelets <50,000 – 70,000/ mm^3 in actively bleeding patients; <20,000/mm^3 in unstable non-bleeding patients; and <10,000/mm^3 in stable, non-bleeding patients. | >100,000/mm^3 in active bleeding patients |
| **Fresh frozen plasma (FFP)** | Non-cellular portion of blood that is separated from whole blood and frozen. Contains all coagulation factors.  
Dosing is based on patient current weight; or in uncontrolled bleeding, given as close as possible to a 1:1 PRBC:FFP ratio. | Approximately 200-250 mL in one unit.  
Apheresis-derived units may be 400-600 mL. | PT >1.5 times the mid range of normal; aPTT >1.5 time high normal range; or factor assay less than 25%. | PT ≤ 1.5 x control;  
aPTT ≤ 1.5 x control;  
Fibrinogen > 100 |
| **Cryo-precipitated Anti-hemolytic Factor (AHF)** | Each unit of cryoprecipitate AHF (Cryo) should contain at least 80 IU Factor VIII:C, and 150 mg of fibrinogen in 5 to 20 mL of plasma. Cryo also contains Factor VIII:VWF (von Willebrand factor), Factor XIII and fibronectin. | 5–20 mL per unit; see label for total number of units included. | Typical dose for stable hypofibrinogenemia is one unit per 7–10 kg of body weight; increases fibrinogen levels by 50 mg/dL in the absence of bleeding or consumption.  
In hemorrhage, Cryo may be given in increased doses of 1 unit/5 kg or 2 units/10 kg; and repeated as needed to maintain fibrinogen levels >100 mg/dL. | Fibrinogen <100 mg/dL  
Fibrinogen >100 mg/dL |

mL- milliliter, Hgb - hemoglobin, g/dL – grams per deciliter, Hct – hematocrit, g – gram, mm^3 – millimeter cubed, PT – prothrombin time, aPTT – activated partial thromboplastintime, IU – international units, kg – kilogram, mg/dL – milligrams per deciliter