

TRANSFUSION GUIDELINES FOR BLOOD COMPONENTS

Approved by the Methodist Hospital Medical Staff, January 6, 2015

Packed Red Cells

- Hemoglobin less than 7 g/dl:**
- Hemoglobin between 8 g/dl and 9.9 g/dl provided that the patient has documented:**
 CAD with unstable angina, MI, or shock
 Blood loss of > 30% of blood volume (>1500 ml) not responding to IV fluids
 Volume replete with need for increased oxygen carrying capacity as evidenced by pulse > 100 or hypoxemia (O₂ sat < 90% or pO₂ < 70)
 Syncope
 Heart failure
 Hypotension / orthostatic hypotension not responsive to fluid resuscitation
- Hemoglobin 10 g/dl or greater:**
 Emergent as indicated by heavy ongoing blood loss or recent massive bleeding
 Chronic bone marrow failure (e.g. myelodysplasia, leukemia, other)
 Heavy operative blood loss anticipated
 Other – please explain: _____

***NOTE:** One unit of packed red cells in an adult, 8 mL/kg pediatric dose, will increase hematocrit by approximately 3% and hemoglobin by 1 g/dL*

Platelets

- Platelet count $\leq 10,000/ \text{cc}^3$ prophylactically in a patient with failure of platelet production
- Platelet count $\leq 20,000/ \text{cc}^3$ and signs of hemorrhagic diathesis (petechiae, mucosal bleeding)
- Platelet count $\leq 50,000/ \text{cc}^3$ in a patient with (indicate):
 Active hemorrhage
 Invasive procedure (recent, in-progress, planned)
- Platelet dysfunction as documented by – *specify* _____

***NOTE:** A single apheresis unit of platelets will increase the platelet count by 35,000 – 55,000/ cc^3 in an adult.*

Frozen Plasma

- Abnormal coagulation studies and significant hemorrhage
- Prophylactic use for PT/APTT >1.5 times the mean of the reference range
- Emergent reversal of coumadin (See “Managing Oral Anticoagulant Therapy in Patients with High INR Values” found on ERNIE).

***NOTE:** A dose of 10 – 15 mL/kg is usually adequate to correct a coagulopathy. One unit of frozen plasma has a volume of 220 ml.*

REFERENCES:

1. *Perioperative Blood Transfusion and Blood Conservation. The Annals of Thoracic Surgery* 2007;83:S27-86
2. *Blood Management*; Goodnough & Shander. Arch Pathol Lab Med. 2007;131: 695-701.
3. *Practice Guidelines for Blood Transfusion: A Compilation from Recent Peer-Reviewed Literature*, American Red Cross Biomedical Headquarters, First Edition, May 2002.
4. AABB, *Choosing Wisely*, Five Things Physicians and Patients Should Question, April 24, 2014