

## TRANSFUSION GUIDELINES FOR BLOOD COMPONENTS

Approved by the Methodist Hospital Medical Staff, January 5, 2010

### Packed Red Cells

- Hemoglobin less than 8 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 (O<sub>2</sub> sat < 90% or pO<sub>2</sub> < 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<sup>3</sup> 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.