



# Blood Transfusion Guidelines

## Red Blood Cells

If transfusing Red Blood Cells one of the following should be present:

- Hgb  $\leq$  7 g/dl / Hct  $<$  21%
- Hgb  $\leq$  8 g/dl / Hct  $<$  24% in post-operative surgical patients or cardiac or cerebrovascular disease
- Rapid or ongoing blood loss
- Patient with anemia and evidence to support the need for increased oxygen carrying capacity (e.g. chest pain, tachycardia or orthostatic hypotension unresponsive to fluid resuscitation, or congestive heart failure)
- Perioperative Hgb  $<$  9 g/dl / Hct  $<$  27% and operative procedure or clinical situation associated with major, predictable blood loss
- Outpatients chronically transfused
- Anemia and acute coronary syndrome

## Platelets

If transfusing Platelets one of the following should be present (Apheresis, Leukoreduced):

**NOTE:** A single unit of apheresis platelets will usually increase the platelet count by 25-35,000/

- Platelet count  $\leq$  10,000/ $\mu$ L: prophylactic in a patient with failure of platelet production
- Platelets  $<$  15-20,000/ $\mu$ L in patients with hematologic malignancy or on active chemotherapy
- Platelet count  $\leq$  50,000/ $\mu$ L: with active bleeding on an invasive procedure (either recent, in-progress or planned)
- Platelet count  $\leq$  100,000/ $\mu$ L: undergoing a neurosurgical procedure or with intracranial or ocular hemorrhage
- Platelet dysfunction (inherited or acquired)
- Class IV shock/low platelet count secondary to massive transfusion (consider concurrent FFP transfusion)

## Fresh Frozen Plasma

If transfusing Fresh Frozen Plasma one of the following should be present:

**NOTE:** Dose depends on the clinical situation and underlying disease process. When given for coagulation factor replacement a dose of 10-20 mL/kg is usually adequate; avg 3-6 units of FFP.

- Preoperative or bleeding pt with INR  $>$  1.5 or significantly elevated PTT
- Emergent reversal of warfarin anticoagulation
- Active DIC
- Massive transfusion or large volume crystalloid infusion (for or to prevent dilutional coagulopathy)
- Other

## Cryoprecipitate

If transfusing Cryoprecipitate one of the following should be present:

**NOTE:** Pooled into bags of 5 units

- Fibrinogen  $\leq$  150 mg/dL + hemorrhage
- Fibrinogen  $<$  80-100 mg/dl
- Dysfibrinogenemia
- Active DIC
- Uremic platelet dysfunction
- Massive transfusion
- Other