

Blood Component Transfusion: Indications and Dosage

The Transfusion Committee has developed standard indications for the use of all blood components according to evidence-based practices. A random sampling of all transfusion orders are retrospectively audited by the Transfusion Committee. Some blood product orders may be prospectively audited by the Blood Bank physician.

All blood products are available as **Emergency Release Uncrossmatched** for urgent transfusion needs. The **Massive Transfusion Protocol (MTP)** is available for massive hemorrhage (see Policy NOR0360). **In emergencies, call Blood Bank @ 7-3569 first**, then place orders in EPIC.

Indications and Dosage: Dosage and response to transfusion are averages. Each patient is unique and may require a different dose than recommended below. Please consult Blood Bank physician (call Blood Bank @ 7-3569).

Blood Product	Indications	Dosage*	
		Adult	Pediatric
Red Cells	<ul style="list-style-type: none"> • Symptomatic anemia • Hct less than 21% (Hb < 7g/dL) with stable volume • Falling HCT with unstable volume (bleeding) 	1 unit = increase Hct 3% (Hb 1 g/dL)	10-15 mL/kg = increase Hct 6-9% (Hb 2-3 g/dL) >30 kg, may dose as adult (1 unit = 330 mL)
Platelets[†] (Single Donor, Apheresis)	<ul style="list-style-type: none"> • Platelet count less than 10,000 • Bleeding w/platelet count less than 50,000 • Peri-operative bleeding with platelet count less than 100,000 • Platelet dysfunction due to cardiac bypass and/or antiplatelet medication • Planned surgical procedure w/platelet count less than 50,000 • Neurosurgical procedure w/platelet count less than 100,000 	1 unit = increase platelet count 30,000-60,000	<ul style="list-style-type: none"> • Stable premature infant with platelet count less than 50,000 • Critically ill premature infant with platelet count less than 100,000 5-10 mL/kg = increase platelet count 50,000-100,000 >30 kg, may dose as adult (1 unit = 250-350 mL)
Plasma (FFP, PF24, Thawed Plasma)	INR greater than 1.6 (post-transfusion INR order required for additional dose)	10-15 mL/kg 25-36 kg: 1 unit 37-56 kg: 2 units 57-76 kg: 3 units 77-96 kg: 4 units >97 kg: 5 units	10-15 mL/kg See adult dosing < 25 kg: order in mLs
Cryoprecipitate (single unit, pooled)	Fibrinogen less than or equal to 100 mg/dL (post-transfusion fibrinogen order required for additional dose)	Up to 70kg: 1 unit (contains pool of 5 units) 71-120kg: 2 units (contains 2 pools of 5 units) >120kg: 3 units (contains 3 pools of 5 units)	Up to 10kg: 1 unit 11-20kg: 2 units 21-30kg: 3 units >30kg: 1 unit (contains pool of 5 units)

*Approximate volumes: 1 unit RBC = 330 mL, 1 unit Platelets = 250-350 mL, 1 unit Plasma = 200 mL.

†HLA compatible or matched platelets require prior approval