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).

<table>
<thead>
<tr>
<th>Blood Product</th>
<th>Indications</th>
<th>Dosage*</th>
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</table>
| **Red Cells** | • Symptomatic anemia  
• Hct less than 21% (Hb < 7g/dL) with stable volume  
• Falling HCT with unstable volume (bleeding) | **Adult**  
1 unit = increase Hct 3% (Hb 1 g/dL)  
>30 kg, may dose as adult (1 unit = 330 mL) |
| **Platelets†** | • 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 | **Pediatric**  
1 unit = increase platelet count 30,000-60,000 |
| **Plasma (FFP, PF24, Thawed Plasma)** | INR greater than 1.6  
(post-transfusion INR order required for additional dose) | **Adult**  
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** | Fibrinogen less than or equal to 100 mg/dL  
(post-transfusion fibrinogen order required for additional dose) | **Adult**  
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)  
**Pediatric**  
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.