Red Cell Transfusion Guidelines
Washington State Clinical Laboratory Advisory Council (CLAC)
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These are guidelines only - each patient must be clinically assessed for transfusion appropriateness.

**ADULT Hematocrit (HCT) Values**

- **Less than 21%** (Hemoglobin less than 7 g/dl)
  - Transfusion indicated

- **21 - 27%** (Hemoglobin 7-9 g/dl)
  - Transfusion not indicated

- **Greater than 27%** (Hemoglobin greater than 9 g/dl)
  - Transfusion indicated if one or more of the following:
    1. Active bleeding
    2. Falling HCT (greater than 4% decrease) within 24-hours (assess if hemodiluted result)
    3. History/risk for vascular, cerebral compromise, oncology diagnosis
    4. In the setting of cardiac ischemia or infarct, consider need for higher hemoglobin.

**PEDIATRIC Hematocrit Values**

- **Less than 21%** (Hemoglobin less than 7 g/dl)
  - Transfusion indicated

- **21 - 27%** (Hemoglobin 7-9 g/dl)
  - Transfusion not indicated

- **Greater than 27%** (Hemoglobin greater than 9 g/dl)
  - Transfusion indicated if one or more of the following:
    1. Active bleeding
    2. Falling HCT (greater than 4% decrease) within 24-hours (assess if hemodiluted result)
    3. History/risk for vascular, cerebral compromise, respiratory distress
    4. Prematurity with increased apnea & bradycardia

**ACTIVE BLEEDING**

- **ADULTS**
  - Greater than 750 cc estimated blood loss
  - Transfusion indicated

- **PEDIATRICS**
  - Loss of greater than 15% of the estimated blood volume
  - Transfusion indicated

**AUTOLOGOUS UNITS**

- **ADULTS**
  - Hematocrit less than 27% (Hemoglobin less than 9 g/dl)
  - Transfusion indicated

- **PEDIATRICS**
  - Hematocrit less than 21% (Hemoglobin less than 7 g/dl)
  - Transfusion indicated

References:
5. Giancarlo Liumbruno, Francesco Bennardello, Angela Lattanzio, Pierluigi Piccoli, Gina Rossetti; Recommendations for the transfusion of red blood cells; Blood Transfus 2009; 7: 49-64.