



ASPIRUS WAUSAU HOSPITAL, INC.

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ONBASE POLICY ID: **13636**

POLICY STATUS: **FINAL**

EFFECTIVE DATE: **5/27/14**

REVISION DATE:

VERSION HISTORY: 5/27/14

APPROVALS:

History of Committee & Approval Dates: Laboratory Director: 5/27/14; Medical Director of Laboratory: 5/27/14; Blood Utilization Committee: 5/27/14; QRC: 6/3/14; MEC: 6/10/14; BOD:.

P&P REF : NEW 2014

REPLACES:

DOCUMENT TYPE: Policy

PROPOSED BY: Laboratory

RESPONSIBLE DEPT: Laboratory

Class: AWH-multi-3

SUBJECT: BLOOD AND BLOOD COMPONENT INDICATIONS (PHYSICIAN RECOMMENDATION)

PURPOSE: TO PROVIDE PRACTITIONERS AND CAREGIVERS WITH RECOMMENDATIONS FOR WHEN TRANSFUSION OF BLOOD PRODUCTS IS CONSIDERED APPROPRIATE. TRANSFUSIONS MEETING THESE RECOMMENDATIONS ARE NOT SUBJECT TO REVIEW BY BLOOD UTILIZATION COMMITTEE. THESE ARE RECOMMENDATIONS ONLY. THE DECISION TO TRANSFUSE OR NOT TO TRANSFUSE SHOULD BE MADE BY THE PATIENT'S PHYSICIAN ONLY AFTER CAREFUL ASSESSMENT OF THE PATIENT'S CLINICAL CONDITION AND LABORATORY PARAMETERS.

AREAS AFFECTED/STAKEHOLDERS:

Patient Care Areas
Laboratory
Medical Staff

PERFORMED BY:

Patient Care Providers

EVIDENCED-BASED INDICATIONS FOR USE:

*Special circumstances require clinical judgment

- I. PACKED RED BLOOD CELLS (PRBC): Homologous or Autologous
 - A. Hgb <7 g/dl or Hct <21%.
 - B. Hgb <8 g/dl or Hct <24% in patients with acute coronary syndromes.
 - C. Rapid blood loss (>1500-2000 mL) not responding to appropriate volume resuscitation or with ongoing blood loss.
 - D. Normovolemic patient with need for increased oxygen carrying capacity evidenced by tachycardia, hypotension, or unresponsive to volume resuscitation.

Dose Recommendations:

- One unit of PRBC in adults or 8ml/kg in pediatrics = an increase in Hgb by 1g/dl or Hct by 3%.

- Non-hemorrhaging adults transfuse at 1-2mL/min X 15 min. then 2.5mL/min (150mL/hr), not to exceed 4 hours.

Comments

- Documentation for all blood components should include indication(s) for the transfusion; this is especially important if the circumstances/indication for the transfusions falls outside of the established recommendations.
- The transfusion of a single unit is often sufficient; transfusion of additional units should be based on clinical assessment of patient.

II. PLATELETS:

- A. Platelet count <10,000 K/cmm in a non-bleeding patient with failure of platelet production.
- B. Platelet count <20,000 K/cmm with signs of hemorrhagic diathesis (petechiae, mucosal bleeding).
- C. Platelet count <50,000 with active hemorrhage or recent procedure (recent, in-procedure, planned).
- D. Platelet count <100,000 with active hemorrhage cardiac/neurosurgery procedure (recent, in-procedure, planned).
- E. Documented platelet dysfunction.

Dose Recommendations:

- One pheresis unit in adults or 5-10ml/kg in pediatrics = an increase in platelet count by 25K-35K/ μ L.
- Non-hemorrhaging adults transfuse at 2-3mL/min X 15 min. then 5mL/min (300mL/hr).

Comments:

- Recommendations for stopping medication prior to invasive procedures vary with the medication and clinical situation.
- Platelet function tests may help assess the level of platelet inhibition and timing of surgical procedures.

III. FRESH FROZEN PLASMA (FFP):

**In emergent cases consider use of 4-factor PCC (Kcentra) in lieu of plasma transfusion.
IV Vitamin K should also be administered regardless of use of PCC or plasma.

- A. INR \geq 2.0 and invasive procedure (recent, in-progress, planned).
- B. INR >1.7 and neurosurgical procedure (recent, in-progress, planned).

Dose Recommendations:

- 10-15 ml/kg is usually adequate to correct a coagulopathy (1 unit FFP = 250-330 mL).
- Non-hemorrhaging adults 2-3mL/min X 15 min. then 5mL/min (300mL/hr).

Comments:

- FFP should not be used to reverse heparin or low molecular weight heparin (LMWH); instead use protamine sulfate.

- If INR is between 1.4-1.7, treat underlying condition and provide supportive care including use of vitamin K. Plasma is generally not required or effective.
- FFP will not generally bring INR value into a normal reference range.
- In liver disease with prolonged PT/INR, plasma products may prevent bleeding but complete correction of INR is unlikely.

IV. CRYOPRECIPITATE:

- A. Fibrinogen <100 mg/dL.
- B. Fibrinogen <150 mg/dL with active hemorrhage.

Dose Recommendations:

- 1 unit/10 kg is usually adequate, 1 pooled unit = 5 units.
- Non-hemorrhaging adults transfuse at 1mL/min (60mL/hr).

- V. GENERAL RECOMMENDATION: Discontinue administration of blood products as soon as active bleeding stops even if laboratory based coagulation goals have not been reached.

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