

blood product administration

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blood product administration

Suppliers:

- Carter BloodCare
- American Red Cross (backup)

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packed red blood cells

- Used for oxygen carrying capacity
- Leuko-reduced
- Additive gives Hct. of 60%
- 10 ml/Kg to increase Hgb 2.25 gm/dl or Hct 7%

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platelets

- Leuko-reduced Apheresis platelets
- Equivalent to six pooled random platelets (approx. 300 ml)
- From a single donor
- 10 ml/Kg increases count 50,000-100,000

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fresh frozen plasma

- Provides clotting factors
- 24 hr. exp. once thawed
- Dose: 10-15 ml/Kg

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cryoprecipitate

- Cold insoluble portion of FFP
- Factor VIII, Fibrinogen, von Willebrand factor
- Fibrin glue = cryo + thrombin
- Once thawed: 6 hr. exp.
- Dose: 1 unit cryo/5 Kg

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safety of blood supply

- NAT test started 1999
- Hepatitis C risk
 - Pre-NAT 1:237,000
 - Post-NAT <1:1,000,000
- HIV risk
 - Pre-NAT 1:1,326,300
 - Post-NAT 1:1,930,000

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ordering blood components

- Blood is a drug regulated by FDA
- Written order and consent required
- Order under BBK:
 - Specimen
 - Product
 - Testing (only if no product needed)
- For surgery provide date and whether it is cardiac surgery

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specimen requirements

- Patient must have unique BB armband # for blood components
- BB specimen = 3ml (min) EDTA (lavender top tube)
- Specimen is good for three days
 - Exception: neonates < 4 mos.

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bb specimen label

- Label at bedside
- Patient must have BB armband
- Required on tube:
 - Patient name
 - Medical record number
 - BB armband number
 - Date and time drawn
 - Phlebotomist Meditech Signon

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picking up blood products

- Assess IV patency and meds
- Blood must be hung within 30 minutes or returned to Blood Bank
- Bring patient name, MR #, and BB armband #
- All components must be filtered

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identification

- 95 % of transfusion fatalities are from ABO incompatibility due to patient identification/clerical error
- Wrong patient, specimen labeling error, product labeling error
- If there is any question, don't hang the blood!!!!

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blood administration

- Signed consent on record
- Check patient/unit at bedside
- Vital signs:
 - Pre-transfusion and 15 minutes
 - Mid-transfusion if > 2 hours
 - Transfusion completion
- How tolerated by patient

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transfusion reactions

- Stop product & keep IV open
- Notify attending Dr and BB STAT
- May need new BB sample, segment from blood product, or urine sample
- Some transfusions may be continued after testing with approval of Pathologist and attending Dr.

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types of transfusion reactions

- Allergic: urticaria----anaphylaxis
- Febrile: ≥ 1 degree C increase
 - possible bacterial contamination
- Acute Hemolytic
 - fever, dyspnea, hypotension.....
- Transfusion-Related Acute Lung Injury (TRALI)
- Circulatory Overload

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directed/autologous donations

- Physician's order required
- Blood Bank has forms
- At least 48 hours needed for processing
- Blood Bank can type family members for potential donors with a doctor's orders

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emergency release

- Special form kept in Blood Bank
- Needs Doctor's signature
- Used for:
 - Traumas
 - Least incompatible
 - Special requirements/time restrictions

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