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| Appendix 6 |  |
| **BLOOD PRODUCT**  **MONOGRAPH** | **RED BLOOD CELLS** |
| For complete information refer to ***Blood and Blood products - Ordering, Issuing and Administration of Blood and Blood Products Policy & Procedure*.** | |
| ***CONSENT FOR TRANSFUSION IS REQUIRED*** | |

**CLASSIFICATION:** Blood component used to increase oxygen carrying capacity and improve tissue oxygenation.

**AVAILABILITY:**

* 1 unit per bag - Volume as indicated on manufacturer label – approximately 300 mL
* Reassess both hemoglobin and clinical status before requesting additional doses.

**STABILITY:**

Use immediately upon receipt. Contact Transfusion Laboratory (TL) if transfusion must be delayed. Complete or terminate transfusion within 4 hours from time of issue. If Red Blood Cells (RBC) will not be used, return to TL immediately.

**PRECAUTIONS:**

* Fatal hemolytic transfusion reactions can occur if a patient is transfused ABO incompatible blood.
* Label laboratory samples in the presence of the patient verifying the patient identification (including unique #) matches the sample label.

**DOSAGE AND INDICATIONS:**

Refer to *Transfusion Guidelines*. Needs for transfusion are based on these guidelines (for certain populations) as well as clinical status.

**PREPARATION:**

* Enter request into Meditech – Order Entry system under the module ‘BB’ for Blood Bank.
* Type and screen (T/S) must be in-date to be valid (collected within 28 days for most patients and 3 days for patient transfused or pregnant within the previous 3 months).
* Turn-around time for a T/S is approximately one hour but may be longer if antibodies are detected.
* RBC’s (packed cells) can be viewed in the Patient Care Inquiry system as ‘Ready’

**ADMINISTRATION:**

* Complete independent double check by two Regulated Health Care Professionals immediately prior to administering the blood transfusion. If any discrepancy exists, call the TL and DO NOT continue until the discrepancy can be resolved.
* Blood Set Intravenous tubing (Y-type) with 170-260 micron in-line filter.
* Compatible only with 0.9% sodium chloride.
* Change blood tubing after 2 units of the same type of component or 4 hours of use.
* IV access – 22G for slow non-urgent transfusions, CVAD, PICC or implanted ports. 16 – 18 G is required for rapid transfusions to prevent hemolysis of the Red Blood Cells.
* Dedicated intravenous site or lumen of a central line – no mixing with other IV solution or medications.
* Initiate transfusion slow (1 mL/kg to a maximum rate of 50 mL/hr) for the first 15 minutes to assess patient response.
* Red Blood Cells are typically transfused over 2 hours. Patients at risk of circulatory overload (i.e. cardiac or renal disease, elderly, chronic anemia) should be transfused slower with furosemide pre-transfusion.

**ADVERSE EVENTS:**

Report all suspected transfusion reactions to the TL; refer to the *Transfusion Reaction Investigation Policy and Procedure.*

**NURSING IMPLICATIONS:**

* Ensure consent is complete before sending for blood from TL.
* Check and document vital signs (temperature, heart rate, blood pressure, respiratory rate and oxygen saturation as follows:

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| Vital Sign Chart | |
| Adult Population | Neonates and Pediatrics Population |
| Baseline (within 30 minutes prior to initiating the transfusion) | Baseline |
| 15 minutes after the blood product entering the vein | 15 minutes after the blood product entering the vein |
| Hourly | Every 30 minutes |
| At the completion of the transfusion | At completion |
|  | One hour post transfusion |
| Note: More frequent vital signs may be necessary for patients: who cannot communicate to staff, or are at risk for circulatory overload, or are experiencing a transfusion reaction. | |

* Patients who will be discharged soon after being transfused must be provided with written instructions on what to do if a reaction is suspected.