

Blood/Blood Product Transfusion (Pediatric): Quick Reference for Emergency Department

Site Applicability: SPH and MSJ Emergency Departments

Definitions (for transfusion)

- **Pediatric** = age more than 4 months to adult
- **Neonatal** = age less than 4 months (see [NICU: Blood/Blood Product Transfusion for Newborns](#))

Need to Know

The only difference in transfusion of product for pediatric patients is that **product dose and administration rates are weight based**. Product checks, tubing and monitoring all remain the same:

Product	Dose	Administration rate
Red Blood Cells*	10 to 15 mL/kg Maximum 20 mL/kg	Initiate at 1 mL/kg/hr to a max rate of 50 mL/hr for 15 minutes Then 2 to 5 mL/kg/hr to a max of 150 mL/hr
Platelets*	10 to 15 mL/kg Maximum 20 mL/kg Children more than 25 kg use adult dose	Initiate at 1 mL/kg/hr to a max rate of 50 mL/hr for 15 minutes Max rate 20mL/Kg/h or over 60 to 120 minutes
Plasma*	10 to 15 mL/kg Maximum 20 mL/kg	Initiate at 1 mL/kg/hr to a max rate of 50 mL/hr for 15 minutes Then 5 to 10 mL/kg/hr or over 60 minutes
Albumin 5%	10 to 20 mL/kg/dose	Initiate at 1 mL/kg/hr to a max rate of 50 mL/hr for 15 minutes Then over 30 to 120 minutes
Albumin 25%	2 to 4 mL/kg/dose	Initiate at 1 mL/kg/hr to a max rate of 50 mL/hr for 15 minutes Then maximum rate 1.5 mL/kg/hr
IVIG	Dependant on condition	Same as adult
All other products	Dependant on condition	Same as adult

* The prescriber may consider ordering an adult dose for Children greater than 25 Kg

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*Transfusion medicine will **NOT** pool fresh products (RBC, platelets, and plasma) for pediatric patients. It is the responsibility of the transfusionist to **ONLY** give the ordered dose of product. All other products will be dosed within +/- 10% of ordered dose as per normal practice. E.g. if 175 mL of RBCs are ordered one full bag will be issued (volume 253 mL) the transfusionist in this case will give 175 mL and discard the remaining 78 mL in the biohazard bin.

Monitoring

Pediatric patients are monitored following the same guidelines as adults:

- Pre-administration (within 30 minutes): assessment and vital signs
- Transfusionist to remain within view of the patient for first 15 minutes of infusion
- Vital Signs at 15 min and hourly throughout infusion
- Post transfusion assessment and vital signs within 60 minutes of completion

Clinical Support

Call Transfusion Medicine Laboratory @ 68003

Related Documents

1. [B-00-12-10065](#) - Blood/Blood Product Administration
2. [B-00-13-10068](#) - Blood/Blood Products: Transfusion Reaction Identification and Management
3. [B-00-13-10028](#) - NICU: Blood/Blood Product Transfusion for Newborns

Persons/Groups Consulted

Nurse Educator, NICU SPH

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