

Platelet Transfusions

Dose, administration, compatibility and storage

Dosing recommendations and description

Platelet dose is based on weight and type of platelet product.

Usual platelet dose in an adult is 1 adult unit.

“Don’t use 2 when 1 will do”



- Avoid giving excess volume to neonates, infants and small children
- Blood bank will supply the most appropriate platelet unit in stock to meet specific patient requirements
- It may be that only a portion of the pack/unit will be administered or multiple pedipaks will be supplied if an adult unit is not available

Platelet product	Dose if ≤ 15 kg	Dose if > 15 kg
Pooled or apheresis platelets # (including pedipaks)	10ml/kg	One adult unit

Can be used to reduce donor exposure in chronically transfused patients

Platelet product	Description	Typical unit volume
Pooled platelets	Dose of platelets obtained from a pool of four donors and suspended in a platelet additive solution (PAS)	326 mL
Apheresis platelets #	Dose of platelets obtained from a single donor and suspended in a mixture of PAS and 40% donor plasma	198 mL
Paediatric apheresis platelets #	As for apheresis platelets, the unit is split into up to 3 pedipaks	54 ml

Compatibility

Unit / Patient	O positive	O negative	A positive	A negative	O Positive low titre	O negative low titre	B positive	B negative	AB positive	AB negative
O positive	1 st	3 rd	*	*	2 nd	*	*	*		
O negative	*	1 st	*	3 rd	*	2 nd	*	*		
A positive	*	*	1 st	2 nd	3 rd	*	*	*		
A negative	*	*	*	1 st	*	2 nd	*	3 rd		
B positive	*	*	*	*	3 rd	*	1 st	2 nd		
B negative	*	*	*	3 rd	*	2 nd	*	1 st		
AB positive			3 rd	*	*	*	*	*	1 st	2 nd
AB negative			*	2 nd	*	*	*	3 rd	*	1 st

- * Check ABO/RhD with blood bank 55829
- ABO and RhD identical platelet products are preferable but not always available
- If the ideal is not available the blood bank scientist will provide the next best available platelet product

Storage and administration

- Store at room temperature, never in fridge
- Administer via a volumetric pump or syringe driver whenever possible
- Suggest administer over 1 to 2 hours
- Increased transfusion rates may be associated with increased risk of transfusion reactions
- Must be completed within 4 hours
- Use new blood administration filter (170 to 200 micron) when administering platelets
- Do not transfuse platelets via same blood administration filter after red cell transfusion as some platelets may get caught in fibrin strands/debris caught in filter (Exception – critical bleeding. Can continue to use same filter unless flow is impeded by debris caught in filter)

All platelet products are leucocyte depleted and irradiated