



## PLTRD

Platelet from random whole blood donors

syn. Platelet concentrates



**Storage:** 22( $\pm 2$ ) °C  
**Shelf life:** 5 days

Platelets require constant oxygen exchange to remain viable and should be stored on a horizontal agitator at ambient temperature. Non-agitated platelets lose function after 4 hours.

DO NOT refrigerate platelets.

Contains platelets prepared by step-wise centrifugation of a unit of donated whole blood. Final product is re-suspended in plasma and anti-coagulant solution (CPD).

Product contains average of 55 x  $10^9$  platelets in total volume of 50-60 ml.

### Indications

Thrombocytopenia or qualitative platelet defects in patients who have active bleeding or at risk or bleeding

Refer to 'Guidelines for platelet transfusions' info-sheet for advice on when to transfuse platelets

### Contraindications

Not recommended for use in patients with destruction of endogenous and exogenous platelets such as in TTP and ITP

Do not use if bleeding is unrelated to decreased numbers of, or abnormally functioning, platelets

### Dosage

1 unit should raise platelet count by  $5-10 \times 10^9/L$  in a haematologically stable adult

Suggested paediatric dosing is 10 ml/kg



### Modifications

- ⊕ Leucodepleted
- ⊕ Irradiated
- ⊕ Washed

Refer to relevant info-sheets for information regarding above secondary modifications

## Pre-transfusion testing requirements

All patients planned for platelet transfusions must have a correct ABO and RhD type on record. Transfused platelets should preferably be ABO matched to the patient. In the event of non-availability of ABO-matched platelets, the next best match would be provided. RhD- patients can safely receive RhD+ platelets. Anti-D prophylaxis would however be recommended to prevent sensitization (refer to anti-D prophylaxis info-sheet).

Multiply transfused patients who become refractory to platelet transfusion due to anti-HLA antibodies may require HLA-matched or cross-match compatible platelets

### Minimum sample required (with first request only)

Child (>1 year) and adults:  
3 ml in one EDTA tube

Infant (0-12 months):  
1 ml in one EDTA microtainer tube



## Administration

- ⊕ Use standard blood transfusion set (170-260 µm) and change every 8 hours
- ⊕ Transfuse slowly for first 15 minutes
- ⊕ Thereafter, transfuse as rapidly as tolerated
- ⊕ Typical total transfusion is over 15-30 minutes but can be adjusted according to clinical condition
- ⊕ Total transfusion time not to exceed 4 hours

## Nursing observations

	Pre-transfusion vital signs (V/S)?	Stay at patient bedside?			Vital signs during transfusion		Post-transfusion monitoring
		First 5 min	First 10 min	First 15 min	After 15 min	Remainder of transfusion	
Adults	Yes	Yes	No, but must be immediately available		Yes	Every 15 mins for 1 <sup>st</sup> hour, then hourly	V/S on completion then monitor as needed
Paediatrics	Yes	Yes			Yes	1st hr – every 15 mins 2nd and 3rd hr – every 30 min then hourly until completion	V/S for 30-60 min post
Neonates	Yes	Yes			Yes	Every 15 mins for entire duration of transfusion	V/S for 30-60 min post

## Adverse reactions

All units are tested negative by serology and nucleic acid technology for HBV, HCV and HIV I/II. Nonetheless, there is a remote risk of transfusion-transmitted infections if the donated unit happens to be within a window period of testing. There is also a risk of infection by bacteria as platelets are stored at ambient temperature and also from non-tested viruses (e.g. CMV) or emerging infections.

Non-infectious risks include febrile non-haemolytic transfusion reactions (FNHTR), allergic reactions, transfusion related acute lung injury (TRALI), transfusion associated cardiac overload (TACO) and transfusion associated graft versus host disease (TA-GVHD).

Please refer to relevant info-sheets for further information on recognition and management of these adverse events.