PLATELETS
Pooled or Apheresis

OTHER NAMES	Pooled platelets, LR CPD = Pooled random donor platelets Apheresis platelets = Single donor platelets
PRODUCT COMPOSITION	• CPD Platelets, Pooled, LR are produced from CPD whole blood collections from which the buffy coat layer is separated. The buffy coat layers from 4 donations are pooled together with the plasma from one of the original donations. The pooled platelet concentrate is then filtered to reduce the number of leukocytes. A typical unit of CPD Platelets, Pooled, LR contains at least 240 x 10^9 platelets suspended in 300 mL of plasma. • Platelets Apheresis, LR are collected from single donors. The typical unit of Platelets Apheresis, LR contains at least 300 x 10^9 platelets per unit. • Trace amounts of red blood cells are also present in some units; these will appear pink to salmon coloured. The Canadian Blood Services (CBS) performs bacterial testing by culture at the time of production on CPD Platelets, Pooled, LR *and* Platelets, Apheresis, LR.
INFORMED CONSENT	Mandatory
ALTERNATIVES	**Non-blood Product:** None **Blood Product:** None
DOSAGE	The number of units of platelets to be administered depends on the clinical situation of each patient **Adult dosage:** See indications: - 1 unit CPD Platelets, Pooled, LR *or* - 1 unit Platelets, Apheresis, LR **Children and Premature Infants:** The usual platelet dose is 5-10mL per kg. Platelet, Apheresis, LR should be selected if possible. Older children receive approximately 5mL per kg up to 1 unit of Platelets, Apheresis, LR. This dosage would be expected to increase the platelet count of an 18kg child by about 50 x 10^9/L
ADMINISTRATION	• Rate of infusion should be as fast as clinically tolerated - Usually 1 dose given over 60 minutes - Slow rate 2 ml/minute - Average rate (after initial 15 minutes) 4-10 ml/minute • Use Standard Blood Administration set with 170-260 micron filter, using gravity flow • Maximum infusion time is 4 hours • Compatible with 0.9% NaCl
DIAGNOSTIC MONITORING	**Vital sign monitoring as per hospital policy for any blood, blood component and other related product.** In the event of an immediate or suspected transfusion reaction, refer to hospital policy and procedures. • Response to platelet transfusion should be assessed by obtaining a 60 minute post transfusion platelet count • The monitoring of patient response may identify patients who are refractory • The response to platelet transfusion is best assessed by observing whether bleeding stops and by the measuring of post-transfusion platelet increments

CLINICAL INDICATIONS	• Refer to Platelet (Plt) guidelines at www.pbco.ca ➢ Plt <100 x 10 /L Neurosurgery, CNS trauma ➢ Plt <50 to 80 x 10 /L Epidural Catheter insert/removal ➢ Plt <50 x 10 /L and significant microvascular bleeding or surgery ➢ Plt <20 x 10 /L and fever or coagulopathy ➢ Plt <10 x 10 /L marrow failure ➢ Known platelet dysfunction (drug induced or hereditary) and a high risk of bleeding (ie. Post op cardiac surgery) • Platelets Apheresis, LR are usually used for patients refractory to platelets from random donor pools **Contraindications** • Plasma coagulation deficits and some conditions with rapid platelet destruction • Thrombotic thrombocytopenic purpura/hemolytic-uremic syndrome (TTP/HUS) • Active heparin induced thrombocytopenia (HIT)
SPECIAL CONSIDERATIONS	• Requires a Type and Screen from current admission • ABO/Rh type and pooled/apheresis units issued by Transfusion Medicine (TM) are based on inventory availability • Any incompatible groups will have had further testing to determine eligibility for transfusion • Administration of RhIg may be considered in cases of transfusion of Rh positive platelets to an Rh negative recipient Depending on the transfusion history and/or the clinical status, cellular products may require some modification. Contact TM at 68003 for more information related to: • Anti-CMV negative (7 days prior to bone marrow transplant to 99 days post) • Irradiated (selected clinical cases only) • Plasma removed, saline replaced
STORAGE CONDITIONS	**DO NOT REFRIGERATE PLATELETS** • Stored in a TM-monitored blood product storage area at 20-24˚C • Gently **agitate** during storage and **immediately prior** to transfusion
REFERENCES	• American Association of Blood Banks, (2003) *AABB Technical Manual 14th Edition* • Circular of Information, Canadian Blood Services February 2011 and www.blood.ca • *Guidelines for the Use of Platelet Transfusions*. (2003) The British Journal of Haematology. (122). p 10-23. • Harmening, D., (1989) *Modern Blood Banking and Transfusion Practices, 3rd Edition.* Philadelphia: F.A. Davis Company. p 18-23 & 328-330.