

## **Platelet Administration Protocol**

<b>Who</b>	Division 1 Registered Nursing Staff Student Nurses (under the supervision of a Division 1 Registered Nurse) Medical Staff
<b>Expected Outcomes</b>	That the correct recipient will receive the correct amount of the correct platelets at the correct time and at the correct rate of transfusion.
<b>Precautions</b>	<ul style="list-style-type: none"><li>▪ With the exception of: 0.9% saline, 4% Albumin, plasma protein fractions, or ABO - compatible plasma; no medications or solutions can be added to blood components.</li><li>▪ The transfusion must be stopped and the line flushed with 0.9% saline before giving intravenous medications. The line must then be flushed with 0.9% saline before restarting the transfusion.</li><li>▪ Solutions containing calcium must never be given with blood components as they may cause clotting of the infusion line.</li><li>▪ Platelets are stored at room temperature on a platelet shaker.</li><li>▪ It is preferable that blood components are administered before 20:00 except in emergency situations.</li></ul>
<b>Why</b>	<p>The clinical indications for platelets are:</p> <ul style="list-style-type: none"><li>▪ Bleeding disorders resulting from thrombocytopenia</li><li>▪ Abnormal or destroyed platelets resulting from disseminated intravascular coagulation (DIC), chemotherapy, or auto-immune diseases</li></ul> <p>For details see:</p> <p><i>Clinical Practice Guidelines on the Use of Blood Components (red blood cells, platelets, fresh frozen plasma, cryoprecipitate)</i>, (2002), National Health &amp; Medical Research Council &amp; Australasian Society of Blood Transfusion Inc. Commonwealth of Australia</p>

- Equipment**
- The recipient must have an identity wristband
  - Signed Intravenous Infusion Chart MRL09
  - Blood Administration Form MRL30
  - Observation Chart
  - Compatibility report
  - Gloves
  - 0.9% saline to prime and flush intravenous line
  - Blood giving set with in-line filter

**Step 1** Explain to the recipient what you plan to do and gain verbal consent.

**Step 2** Take a set of baseline observations and record them on the observation chart.

#### Checking the Blood Component



Two people, either Division 1 Registered Nurses or Doctors must check the blood component at the recipient's bedside, **using the checklist on the Blood Administration Form MRL30.**

**Step 3** Ask the recipient to tell you their given name, surname and date of birth. If the recipient is unconscious or unable to provide these details, ask a relative or a second member of staff to verify the recipient's identity.

**Step 4** Check that the full name, UR number and date of birth exactly match on the:

- Compatibility Label
- Compatibility Report
- Identification Wristband
- Intravenous Infusion Chart MRL09

**Step 5** Check that the ABO group, Rh group and unique donation number exactly match on the:

- Compatibility report
- Compatibility label
- Platelet label

Platelets should preferably be ABO and Rh type compatible with the recipient. However, ABO-incompatible platelets may be used if ABO-compatible platelets are not available.

If Rh(D) positive platelets are transfused to an Rh(D) negative female of child bearing potential, Rh(D) Immunoglobulin must be administered to prevent Rh(D) immunisation.

**Step 6** Check the expiry date on the pack and examine the pack. Do not administer the platelets if the pack is damaged or if the contents show any sign of deterioration such as:

- Leakage
- Unusual colour (dark, cloudy, particles)

**Step 7** Instruct the recipient to notify a nurse or doctor immediately if they begin to experience shivering, flushing, itching, pain, shortness of breath or begin to feel anxious.

**Step 8** Both staff members must sign the Transfusion Report and the Intravenous Infusion Chart MRL09 together with the date and time of administration. Record the unique donation number of each blood pack on the Blood Administration Form MRL30.



If any checks fail - contact the blood bank laboratory. **DO NOT** proceed with the transfusion.

**Step 9** Mix the platelets thoroughly by gently inverting the pack and connect the pack to the giving set.

### Initial Infusion Rate

Infuse blood component slowly over the first 15 minutes. The initial infusion rate must not exceed 5ml/min unless otherwise indicated.

If there are no signs or symptoms of reaction increase to the rate on the Intravenous Infusion Chart MRL09.

### Rate and Time Limits for Transfusion

Administer as soon as the platelets are received. Infuse each pack as fast as safely tolerated by the recipient (30 minutes - 1 hour). Complete within 4 hours.

Return platelets to the hospital blood bank immediately if there is any delay in transfusion.



If any signs or symptoms of transfusion reaction occur, **STOP THE TRANSFUSION IMMEDIATELY** and report them to the treating medical officer.

See protocol CP-BP02 'Transfusion Reaction Management and Reporting'.

### Monitoring the Recipient

#### **Step 10**

For each bag of platelets transfused, record the recipient's temperature, pulse rate, blood pressure and respiration rate.

- Before starting the transfusion (baseline)
- 15 minutes after the transfusion is started
- On completion of the transfusion

Recipients should be in an area where they can be observed throughout the transfusion. Remain with the recipient in the first 5 minutes of the transfusion as the blood component enters the vein to detect early signs and symptoms of adverse effects.

### Completing the Transfusion

#### **Step 11**

Dispose of used pack in an infectious waste container.

Flush the intravenous line with 0.9% saline **between packs and at the end of the transfusion** as ordered. Disconnect the giving set and dispose of in an infectious waste container.

### Documentation of the Transfusion

#### **Step 12**

Ensure that the following documentation is completed for the transfusion episode.

- Compatibility Report
- Intravenous Infusion Chart MRL09
- Medical/Health Record



If an adverse event (actual or 'near miss') is associated with administration of blood, document details in the medical record and complete an incident report.



Brecher, M. (ed), (2002). AABB Technical Manual, 14th edition. Bethesda: American Association of Blood Banks

*Blood Component Information: an extension of blood component labels*, 2005, ARCBS

The Clinical Use of Blood in Medicine, Obstetrics, Paediatrics, Surgery and Anaesthesia, Trauma & Burns, World Health Organisation, Blood Transfusion Safety, Geneva

Guide to the preparation, use and quality assurance of blood components. 9<sup>th</sup> edition, Council of Europe Publishing

*Guidelines for the Administration of Blood Components* (1<sup>st</sup> Ed.). (2004). Australian & New Zealand Society of Blood Transfusion Inc, Royal College of Nursing Australia

Popovsky, M. (Ed), (2001). *Transfusion Reactions*, 2<sup>nd</sup> edition, Bethesda: AABB Press

Serious Hazards of Transfusion Annual Report 2000-2001. [www.shot.demon.co.uk](http://www.shot.demon.co.uk)

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