**TRANSFUSION MEDICINE PROTOCOLS**

# Rh D Negative Women:

# Rh D Immunoglobulin Products & Applications

**This document should be read in conjunction with the Disclaimer**

## Contents



## Aim

To outline the available Rh D Immunoglobulin (RhD-Ig) products which are available to order from the Transfusion Medicine Unit (TMU) and to provide an overview of the applications of RhD-Ig.

## Indications

Prophylactic Rh D Immunoglobulin is indicated for Rh D Negative women with no pre-formed immune Anti-D in the following circumstances:

- Post-delivery of a Rh D Positive baby or fetus.
- Post fetal death in utero (FDIU) when fetal blood group is unknown.
- Post amniocentesis, amnioreduction, cordocentesis.
- Post chorionic villi sampling (CVS).
- Antepartum haemorrhage (APH).
- External cephalic version (ECV) performed or attempted.
- Threatened, incomplete, missed abortion or termination of pregnancy (TOP).
- Ectopic pregnancy.
- Blighted ovum
- Hydatidiform mole.
- Any other situation where FMH may result e.g. abdominal trauma, concealed abruption, Motor Vehicle Accident, post-coital bleeding.
- Transfusion of Rh D Positive platelets.

## Rh D Immunoglobulin Products

There are two different CSL Rh D Immunoglobulin products available for intra-muscular injection. There is also an intravenous Rh D immunoglobulin which is only available for large volume FMH.

- CSL 250 IU 'minidose' will destroy 2.5mL of Rh (D) Positive red cells.
- CSL 625 IU will destroy 6mL of Rh (D) Positive red cells.
- Rhophylac intravenous Rh D Immunoglobulin will destroy 15mL of Rh (D) Positive red cells.

Rh D Immunoglobulin should be given as soon as possible after the sensitising event, but always within 72 hours. A dose offered within 9-10 days may still provide some protection. Refer to the ARCBS information link for Clinical 'Frequently Asked Questions' relating to the use and administration of 'Anti D' Rh D Immunoglobulin

## Rh D Immunoglobulin Applications

Approved for use in Rh D Negative patients as follows:

**CSL 250 IU 'minidose'**

- **First trimester sensitising events in single pregnancy** up to and including 12 weeks gestation. The dose will cover a FMH of 2.5mL packed fetal red cells. A Kleihauer Test is NOT required

- **Rh D Positive Platelet transfusion**. The dose will protect against immunisation from Rh(D) Positive red cells in the platelets. It may be used when the ARCBS are unable to supply Rh(D) Negative platelets

In the FIRST TRIMESTER one dose of Rh D Immunoglobulin provides protection for 6 weeks up to and including 12 weeks gestation. However a subsequent miscarriage or pregnancy requiring instrumentation of the uterus will require an additional dose of Rh D Immunoglobulin irrespective of when the previous dose was given.

**CSL 625 IU**

- **First trimester sensitising Events in multiple pregnancy** up to and including 12 weeks gestation. A Kleihauer Test is NOT required

- **Routine prophylaxis at 28-30 and 34-36 weeks gestation**. Rh(D) Negative women will attend KEMH clinic for administration of a dose of 625 IU Rh D Immunoglobulin at both 28-30 and 34-36 weeks gestation provided they have no pre-existing immune anti-D. These routine prophylactic doses of Rh D Immunoglobulin are standing orders, therefore a prescription from a Medical Officer is NOT required. A Kleihauer Test is NOT required.

- **Second and Third trimester sensitising events (≥13 weeks).** A Kleihauer Test is required to determine if additional doses of Rh D Immunoglobulin are necessary.

- **Post Natal Prophylaxis** A Kleihauer Test is required to determine if additional doses of Rh D Immunoglobulin are necessary

**Rhophylac Intravenous Rh D Immunoglobulin 1500 IU**

In some circumstances access to an intravenous Rh D Immunoglobulin preparation may be warranted. Rhophylac intravenous Rh D Immunoglobulin is accessed through the Transfusion Medicine Unit on authorisation from the Haematologist. It is stored at the Australian Red Cross Blood Service Facilities. The National Blood Authority has only approved the use of intravenous Rh D Immunoglobulin for the following indications within Australia:

- **Post Natal prophylaxis**

- **Transfusion of Rh D Positive red cells in a Rh D Negative female** of child bearing age – administration of intravenous Rh D Immunoglobulin to prevention alloimmunisation.

Rhophylac is supplied in a syringe containing 2mL or 1500 IU of human Rh D Immunoglobulin. Further information on Rhophylac can be obtained on the following ARCBS link: Anti D - Rhophylac Information

## Prescription

Rh D Immunoglobulin must be prescribed on the patient's medication chart for all indications including sensitising events and post-delivery of a Rh D Positive infant. The only exception to this is the routine prophylactic doses of Rh D Immunoglobulin administered at 28-30 and 34-36 weeks gestation. These prophylactic doses are standing orders therefore a prescription from a Medical Officer is NOT required.

## Documentation

Administration of Rh D Immunoglobulin must be recorded on the MR007 Rh D Immunoglobulin 'Anti D' Record Form. The sticker from the vial should be placed on the record form and the date and time of administration, checking signatures and indication must be completed.
The declaration stating that the patient has given verbal consent and a patient consumer information leaflet has been provided and the patient's questions have been answered must also be signed and dated.

## Consent

Verbal consent must be obtained prior to administration of Rh D Immunoglobulin and the patient should be given an opportunity to ask questions. A patient consumer information leaflet should also be provided. The administrator's consent declaration on the MR007 Rh D Immunoglobulin 'Anti D' Record Form must be signed and dated as a record of informed consent.

## Refusal

Occasionally a patient may refuse Rh D Immunoglobulin. Whatever the reasons, refusal of consent for Rh D Immunoglobulin (as with any blood product) must be clearly documented in the patient's medical record. The unwanted Rh D Immunoglobulin vial must be returned to the Transfusion Medicine Unit immediately and the Transfusion Medicine Scientist notified so the refusal may be flagged on the patient's Transfusion Medicine Computer record. This is important as the patient may become immunised and have Anti D detected serologically at future investigations. For more information see KEMH Transfusion Medicine Protocols: Blood Product Prescription Consent and Refusal

## References


- National Blood Authority Guidelines on the prophylactic use of Anti D (Rh D Immunoglobulin) in Obstetrics http://www.nba.gov.au/pubs/pdf/glines-anti-d.pdf
- Royal Australian & New Zealand College of Obstetrician & Gynaecologists Ante Natal Screening Tests 2006 www.ranzcog.edu.au/publications/statements/C-obs3.pdf
- Rhophylac http://www.transfusion.com.au/node/rhophylac-replaces-winrho-sdf-rhd-immunoglobulin-intravenous-use-australia
- ANZSBT Guidelines for Pretransfusion Testing, 4th Edition, ANZSBT, 2007 http://www.anzsbt.org.au/publications/index.cfm#societyg
- Australian Red Cross Blood Service – Blood products and transfusion practice for health professionals. Australian Red Cross website
- The Australian Blood Service (ARCBS) Blood Component Information http://www.transfusion.com.au/sites/default/files/BCI%202009.pdf
- Flippin' Blood BloodSafe SA / ARCBS Second Edition June 2012 http://resources.transfusion.com.au/cdm/ref/collection/p16691coll1/id/20


## Related policies

- ANZSBT Guidelines for Pre-transfusion Testing, 4th Edition, ANZSBT, 2007 http://www.anzsbt.org.au/publications/index.cfm#societyg
- National Safety and Quality Health Service Standards, October 2012. Standard 7: Blood and Blood Products

## Related WNHS policies, procedures and guidelines

- Blood Product Prescription Consent and Refusal
- Rh D Negative Women: Kleihauer and Feto-maternal Haemorrhage.
- Clinical Practice Manual Rh D Negative Blood Group Management

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