



## GUIDELINE

# Resuscitation: Emergency Transfusion of Group O- RhD Negative Blood in KEMH Theatre

<b>Scope (Staff):</b>	Nursing and Medical Staff
<b>Scope (Area):</b>	NICU KEMH, NICU PCH, NETS WA

### Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

## Aim

Provides guidance for the team involved in the care of an infant needing emergency transfusion of blood in theatre.

## Risk

Delays in accessing blood leading to delays in resuscitation.

## Indication

Blood loss with associated shock (weak pulses, bradycardia) not responding to volume replacement with normal saline. Read this guideline in conjunction with the Transfusion Medicine [Critical Bleeding Protocol](#)

## Access to Uncrossmatched Group O RhD Negative Blood

If a newborn requires urgent transfusion, it is preferable to obtain Group O RhD Negative blood from Blood Bank, as they check the mother's antibody status and immediately issue the uncrossmatched blood through the computer system that has in-built checks. They will immediately issue uncrossmatched blood with a proper label.

However, in a life-threatening emergency situation, where blood is needed immediately at delivery, a stock of one (1) Group O RhD Negative fresh ( $\leq 7$  days old) CMV Negative red cell adult pack is stored in the monitored KEMH Theatre Recovery blood fridge for neonatal resuscitation.

## Process for Resuscitation Team

- Neonatal staff can be preoccupied with the resuscitation therefore the attending midwife in theatre will be nominated the nominated person to collect the Group O RhD Negative blood from the theatre blood fridge.
- At the earliest possible opportunity, the nominated person must:
  - Telephone the Blood Bank (Ext 82748) when blood is removed from the blood fridge and provide the full maternal name, UMRN, location, clinical indication, and name of the requesting clinician.
  - Complete the Uncrossmatched Emergency Group O RhD Negative label attached to the pack and send to Blood Bank. [See Appendix 1](#)
- While on the phone, the Blood Bank scientist will:
  - Check the maternal history and antibody status
  - Where possible, offer an alternative if the Group O RhD Negative blood is likely to be incompatible with known maternal antibodies
  - Request an urgent neonatal crossmatch sample to be collected and sent to Blood Bank. Ideally this should be pre-transfusion where possible. The request should be clearly notated to reflect whether the sample is PRE or POST transfusion.
  - Advise if additional maternal or cord blood samples are required.
  - Provide additional blood products as required.
- Notify Blood Bank immediately if the blood pack is:
  - Removed from the blood fridge
  - Not set up for infusion within 30 minutes
  - Returned to the blood fridge unused
  - Or if there are any problems with the fridge, blood packs or the process
- Blood that has been out of the blood fridge for > 30 minutes and not transfused is no longer suitable for clinical use because of the risk of bacterial proliferation and MUST be returned to Blood Bank for documented disposal. All blood wastage is reviewed by the KEMH Transfusion Committee.

## Essential Documentation

### The requesting Neonatologist/Senior Registrar is to ensure:

- The KEMH Theatre Transfusion Register is completed with date and time of blood removal and/or return to Recovery blood fridge.
- If blood is transfused, complete the '[Uncrossmatched Emergency Group O RhD Negative](#)' label attached to each pack and return the completed Theatre Transfusion Register form and labels to Blood Bank as soon as possible.
- NOTE: It is essential that Blood Bank is notified of the outcome of any blood packs that are not used within the 30-minute time frame.

## KEMH Blood Fridge Downtime Procedure

- Refer to KEMH [Critical Bleeding Protocol](#)
- The emergency blood will be taken down and stored in blood bank by their staff.
- Anticipate the potential need for blood (e.g. in cases of large APH) and designate someone in the resuscitation team to order it.
- Theatre will call Blood Bank if emergency Group O RhD Neg blood is required for neonatal resuscitation. Blood Bank will only issue the designated adult units. Minipacks will NOT be offered.
- A call to blood bank (direct extension: 82748) needs to be made to request this unit. While any staff member can call for the blood, the neonatal staff are usually preoccupied with the resuscitation. The attending midwife can be asked to call blood bank in such circumstances.
- The theatre PCA (if not in theatre) is then paged over the theatre intercom to collect the blood from blood bank.

### Related CAHS internal policies, procedures and guidelines

WNHS Transfusion Medicine: [Critical Bleeding Protocol](#)  
WNHS Transfusion Medicine: [Blood Products: Neonates](#)  
[Neonatal Blood Product Administration Guide](#)


### References and related external legislation, policies, and guidelines

[Guidelines for Transfusion and Immunohaematology Laboratory Practice \(1st Edition Revised 2020\). Australia and New Zealand Society of Blood Transfusion \(ANZSBT\)](#)  
[Guidelines for the Administration of Blood Products \(3rd Edition 2019\). ANZSBT](#)  
[Blood Management Standard. Australian Commission on Safety and Quality in Healthcare.](#)  
[Requirements for Transfusion Laboratory Practice \(4th Edition 2019\). National Pathology Accreditation Advisory Council \(NPAAC\)](#)

### Useful resources (including related forms)

MR417.00 Consent to Blood Products (Neonatal)  
MR120.01 Transfusion Reaction and Adverse Incident Reporting Form (PCH 3B)  
MR735.2 Transfusion Reaction Reporting (KEMH NICU)

This document can be made available in alternative formats on request.

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## Healthy kids, healthy communities

Compassion
Excellence
Collaboration
Accountability
Equity
Respect

Neonatology | Community Health | Mental Health | Perth Children's Hospital

**Appendix 1: 'Uncrossmatched Emergency O Negative' label attached to each pack**

<b>NEONATAL USE ONLY</b>		
<b>EMERGENCY O NEG BLOOD</b>		
<b>O NEG</b> CMV Neg <7 days old	<b>DONOR #</b>	
<b>1) REMOVE BLOOD and NOTIFY BLOOD BANK Ext 82748 2) Complete this form and send to Blood Bank</b>		
<b>REMOVED FROM FRIDGE</b>	<b>DATE</b>	<b>TIME</b>
<b>CLINICIAN</b>	<b>NAME</b>	<b>SIGN</b>
<b>BABY (if known)</b>	<b>NAME</b>	<b>UMRN</b>
<b>MOTHER</b>	<b>NAME</b>	<b>UMRN</b>