ADMINISTRATION AND MANAGEMENT OF BLOOD AND BLOOD PRODUCTS

Reviewed: June 2021

Policy Applies to:

All Clinical staff at Mercy Hospital involved with the management, prescribing or administration of blood or blood products.

Related Standards:

- Refrigeration Guidelines, Requirements for the Storage of Blood and Blood Products (June 2019)
- EQuIP Standard 1.5: The organisation provides safe care and services. *Criterion 1.5.5 The system to manage sample collection, blood, blood products and patient blood management ensures safe and appropriate practice*
- ANZSBT Guidelines
- NZBS Guidelines.

Rationale:

Ensure that blood and blood products are prescribed, obtained, stored and administered in a safe and effective manner in line with the New Zealand Blood Service requirements.

Definitions:

Blood Transfusion- refers to the intravenous administration of blood components or blood products.

Fractionated Blood Products - This is the term used for plasma derived fractionated blood products and equivalent recombinant products. They are manufactured in a highly regulated environment. Products are frequently upgraded with the incorporation of new safety or purification steps e.g. Albumex.

Abbreviations;

NZBS - New Zealand Blood Service.

Objectives:

- To ensure that the patient has understood the risks, benefits, and any alternatives, and has provided written consent prior transfusion of blood components and/ fractionated products/bone
- To ensure the right patient is identified using the correct procedure
- To ensure the right blood component / fractionated product is issued to the right patient
- To ensure documentation requirements are met.
- To ensure that blood is transported and stored in a manner that meets all safety requirements

Implementation:

- Successful completion of IV certification
- Clinical orientation face to face discussion
- On line component via Health Learn "Medication and Fluid Foundation repeated 3 yearly supported in area by the IV link nurse

The Registered Nurse, the Credentialed Specialist, and Registered Anaesthetic Technician/Registered Nurse Anaesthetics staff are responsible for administering, observing, and documenting the transfusion of blood components/fractionated product.

All clinical staff involved with the transfusion of blood components/fractionated product must have validated skills and expertise to provide clinical care in a safe and appropriate manner. For Registered Nurses and Registered Anaesthetic Technicians validation occurs through IV certification.

To ensure safety and best outcome, all Mercy Hospital staff authorised to administer blood components and blood products must follow the policy, process and guidelines related to blood components or products.

Mercy Hospital staff and Credentialed Specialists will use this policy and process in addition to the information available on SharePoint through the NZBS Clinical Data Resource website and the NZBS Clinical Compendium website to ensure currency of both practice and information.

Evaluation:

- Incident reports
- Daily Blood Fridge Temperature & Visual Check form
- Weekly review of temperature graph disk
- Monthly Blood Fridge Alarm Checks
- 6 monthly Internal audit of the completion of the *Mercy Blood Component /Product Issue and Administration Record form* (Previously referred to as the Green Form)
- 6 monthly Blood Refrigeration Audit
- Preventive Maintenance reports
- 2 yearly NZBS external audit

Associated Legislation

- The Medicines Act 1981, Medicines Regulations 1984

References

Refrigeration Guidelines, Requirements for the Storage of Blood and Blood Products
8th Edition, June 2019
ANZSBT Guidelines
NZBS Guidelines

External Documents available on the NZBS Clinical Data Resource accessed via SharePoint NZBS Clinical Data Resource

- Mercy Blood Component/Product Issue and Administration form
- Blood Bank Request form
- NZBS Patient leaflets
- NZBS Acute Transfusion Reaction (ATR) Notification to Blood Bank
- NZBS Notification of suspected adverse reaction to a Fractionated Blood Product
- NZBS Component / Product Notification 236F19505
- NZBS Returned Blood Declaration Form \ 136F20001
- NZBS Blood Packaging Training and Information Pack located in Red Folder by Blood Fridge.

Internal Documents

- Mercy Return of Blood Product Notification
- Consent Policy
- Medication Management Policy
- Incident Policy
- Emergency Plan (see appendices Emergency transport & Alarm Bells, Plant and Equipment Alarm Station (PEAS)
- Adverse Reaction to Medication Policy (see Anaphylaxis flow diagram)Work Manual;
- Mercy Hospital IV Manual – February 2021
- NZBS Blood bank Hours - Clinical Services Work Manual April 2019
- Blood Fridge Maintenance guidelines (November 2020)
- Taxis
- Audit tool
- Blood Component – Product Issue and Administration Record Audit Tool F:\Mercy Shared\Audits\Clinical Audits\Clinical Audit Tools and Checklists\Tools\Blood Component - Product Issue and Administration Record Audit Tool.docx

Associated forms

Mercy Informed Consent form (June 2021)
Medication chart
Fluid Balance chart
Patient Observation chart
Anaesthetic record
IV certificate practical checklist
Mercy Hospital Blood Component/Product Issue and Administration (Green Form 2021)
Daily Blood Fridge Temperature and Visual Check Form (Nov 2016).

Audits

Blood Refrigerator Audit (Clinical Audit tools /checklist/tools All Blood Audits)
Mercy Hospital Blood Component/Product Issue and Administration Record Audit (Clinical Audit tools /checklist/tools All Blood Audits)
Blood Refrigeration RBC Dispensing Audit (Clinical audit tools and checklists/tools/All Blood Audits).

References on line

NZBS Clinical Data Resource- SharePoint - NZBS Clinical Data Resource
NZBS Clinical Compendium- SharePoint - NZBS Clinical Compendium

Appendices

1. Mercy Blood Component/Product Issue and Administration form March 2021 (Green Form)
2. Blood Request form (July 2020)
3. NZBS Acute Transfusion Reaction (ATR) Notification to Blood Bank (July 2020)
4. NZBS Notification of Suspected Adverse Reaction to a Fractionated Blood Product
5. Mercy Hospital Blood Product Form (June 2020)
6. Monthly Blood Fridge Alarm Checks (June 2020)
7. Daily Blood Fridge Temperature and Visual Check Form (June 2020)
8. Blood Conservation (June 2020)
9. Return of Blood to Blood Bank Checklist (May 2021)
10. Dispatch Notification Form (BB use only)
11. Blood Component List (June 2020)
12. Von Willebrands; Inherited Bleeding Disorder; Haemophilia Discharge Checklist (2017)
13. Von Willebrands: Request for Protocol (2013)
14. Return Blood Declaration Form. 136F2001 (NZBS) (2019)
15. Blood Process Flowchart (May 2021)
16. Pre-transfusion Sample Collection for Blood Bank and Requesting Blood Components or Products August 2020
17. Mercy Hospital Emergency Blood Product Form
18. Receipt of Emergency O RhD Negative Blood – Checklist
19. Return of Emergency O RhD Negative Blood – Checklist
20. Administration of Emergency (O RhD) Negative Red Blood Cells

Process

Introduction

Outlined in this process document is the management of Red Blood Cells, the most common product that is administered at Mercy Hospital. Although there are many similarities in the management of other blood products particularly with consent, bedside checking and monitoring, for specific instructions on other blood products please use the NZBS Clinical Data Resource located on SharePoint. The NZBS Clinical Compendium also located on SharePoint provides additional information on NZBS protocols and guidelines.

In order to minimise patient risk associated with the receipt of blood and blood components careful attention must be paid to;

1. Correct patient identification/pre transfusion testing - strict adherence to patient identification during blood sampling and clerical checks pre transfusion
2. Pre administration storage
3. Issuing from storage
4. Bedside checking
5. Administration and documentation
6. Monitoring

Points of Note:

Mercy Hospital blood inventory is primarily re-suspended red blood cells.

For elective surgery, crossmatched red cell units may be requested as clinically indicated. Freeze-dried fibrinogen, supplied as RiaSTAP®, may be considered in the future to provide access to coagulation factors in an emergency.

Blood components are issued from the New Zealand Blood Service (NZBS) Blood Bank (BB) in Dunedin. Mercy Hospital is responsible for ensuring 100% traceability of all blood components or products supplied via NZBS Dunedin BB.

All movements into and out of the Blood Fridge MUST be documented in the *Mercy Hospital Blood Product Form (App:5)*

Refer to the NZBS *Refrigeration Guidelines (2021)* for full detailing of mandated fridge management and maintenance.

Refer to the *Mercy clinical services work manual/blood fridge maintenance guidelines* for all aspects of blood receipt, storage, uplift and return; the following guidance provides in-house responsibilities which are in addition to the processes outlined by NZBS BB.

PROCEDURES

1. Correct patient identification/ Pre transfusion testing

As Mercy hospital is a private elective surgical hospital, a group & screen or cross match for blood is generally done prior to admission to Mercy by the admitting Credentialed Specialist. Similarly consent for receiving blood is also generally undertaken prior to admission. This does not lessen our responsibilities for ensuring safe ordering, storage and administration of blood and blood products.

Transfusion of ABO–incompatible red cell components may result in acute and severe haemolysis and shock. In a conscious patient a few mls may cause symptoms within 1-2mins.

Before a blood component (and some blood products – ref: *Blood Components List App:11)* can be issued the patient's ABO & RhD blood group needs to be determined and the presence of any red cell antibodies needs to be known (group and screen).

Where Mercy staff are undertaking to provide a specimen for group and screen (G&S) or cross match (XM) a fully and accurately completed *Blood Bank Request form* must accompany the pre-transfusion specimen when forwarding to Blood Bank for processing.

As the majority of transfusion errors are clerical in nature, specimens for group and screen (G&S) or cross match (XM) must be clearly hand labelled at the bedside (pre-printed labels are not accepted) with the patient's:

- Christian and surname (do not include middle names);
- Date of birth;
- National Health Index (NHI);
- Date/time of collection;
- Signature or initials of collector

For the EDTA 6 ml tube the details must be written directly onto the tube.

The *Blood Request form* must be completed with;

- (patient sticky label) or fully completed patient identifying details
  - first name
  - surname
  - gender
  - NHI/hospital number and/or date of birth (both are preferable)
- Name and signature of requesting practitioner (doctor or nurse)
- Date and time of collection

- Signed and dated declaration that blood was labelled at the bedside and labelled by the person drawing the blood. This is part of the *Blood Bank Request* form
- Blood components/products and/or tests required

Should also include:

- Relevant patient history, details and tick box completed
- Note that an inadequate patient history may result in the sample expiring sooner than necessary and a lower priority when testing
- Patient's location
- Date of surgical procedure (if applicable)

A group and screen sample is only valid for 72 hours unless the following information is provided:

- Confirmation that the patient has not been transfused in the last three months
- Confirmation that the patient has not been pregnant in the last three months

If the patient has not been pregnant or transfused in the last three months, the sample is valid for 7 days. Extended validity (up to 21 days) is available for elective surgery if a date of surgery is provided.

All details on the *Blood Bank Request form* and specimen must match exactly, before Blood Bank can process the specimen. The details supplied on the request form and specimen, are the details that will subsequently appear on the unit swing label.

The EDTA Tube (6ml pink top) accompanied by the *Blood Bank Request form* is then forwarded to NZBS Blood Bank, Dunedin Hospital. The venepuncturists take the sample with them (if they do the sample) otherwise the sample is sent by taxi.

2. Mercy Hospital Blood Fridge

To ensure compliance with Blood refrigeration requirements PACU staff undertake;

- A daily visual check of the blood fridge temperature recording and view any blood product cross match & expiry date and time

Maintenance:

NZBS Refrigeration Guidelines, *8th Edition June 2019* (online) Section 5.
Blood Fridge Maintenance Guidelines – (clinical services work manual/blood fridge maintenance guidelines).

3. Consent and Prescription

Consent

Prior to administering a blood component (red cells, platelet concentrates, fresh frozen plasma, and cryoprecipitate) or blood products (albumin, immunoglobulin, coagulation factors) the Registered Nurse, AT, or Credentialed Specialist needs to ensure that consent has been recorded on the Mercy Consent form.
If consent is not recorded on the consent form, consent to the administration of blood must be sought from the patient. In addition the patient should be offered written (NZBS patient leaflet) and /or verbal information as part of the consenting process.

Consent (with the exception of an emergency) must be obtained prior to ordering any blood components/fractionated products from Blood Bank. Where administration of blood components and products are refused by an adult for any reason, this decision must be respected, recorded in the clinical record, ensuring that those making the decision fully understand the implications this may have on the clinical outcome (for additional information please access the Consent Policy on SharePoint)

For further information about care for patients who decline blood transfusion refer: *Blood Conservation (App: 8)*

Prescription

Blood component and fractionated products are classified as prescription medicines. A prescription for a blood component / fractionated product must be written by the credentialed specialist on a Mercy Medication and IV Prescription Chart, Mercy Anaesthetic Record or ICU Medication Chart.

The prescription must specify;

- The blood component / fractionated product to be administered including any special requirements e.g. irradiation.
- Route to be administered.
- Quantity to be given (e.g. units, mL, grams)
- Duration of the transfusion (hours or parts of a hour) e.g. over 2 hours, not 2QH
- Special instructions e.g. premedication or diuretic
- Each item signed and dated (not one signature and brackets)
- Blood is a high risk medication and verbal orders shall not be taken for high risk medications.

4. Obtaining Cross-matched Red Cells from the New Zealand Blood Service (NZBS):

Cross matched red cells are requested using the *Mercy Blood Component/Product Issue and Administration form* (*App: 1)*

When you require the cross matched red cells:

- Scan the *Mercy Blood Component/Product Issue and Administration form* to the NZBS Blood Bank, Dunedin Hospital. Noting the type of blood product required and the number of units. (Scanner is pre-set on McAuley ward, ICU, Mercy Cancer Care and Theatre and main reception scanners)
- In addition, phone Blood Bank to verbally confirm your request
- Notify Reception that you are waiting for blood to be delivered

Please Note: after being scanned to Blood Bank, the *Mercy Blood Component/Product Issue and Administration* form is no longer required and is to be Stamped [*Order Form only NOT for Clinical Notes. Destroy within 24 hrs]* and attached to clipboard beside the scanner, to be destroyed at a later date.

- NZBS will deliver the blood product to Mercy hospital main reception with a scanned copy of the *Mercy Blood Component/Product Issue and Administration form*.
- Mercy Hospital main reception staff will contact the Theatre Clerk or PACU staff when blood product/components have arrived at reception.

During Office Hours:

- PACU staff will sign blood product/component into the blood refrigerator and contact the area requesting the blood to inform them the blood product is now in the blood refrigerator.

After Hours:

- McAuley Ward or ICU staff will sign the blood product into the blood refrigerator.

5. Storage of Blood Products

- All blood products, whether stored in the Blood Fridge, or administered directly to the patient, must be signed into the *Mercy Hospital Blood Product Form (App:5)*
- Details must include:
  - Date, Time,
  - Nurse Signature,
  - Patients full name and NHI,
  - Type of blood product and each unit number.

- The units must have been transported correctly according to the *NZBS Red Blood Cell packing profile* that will accompnay the blood product.

- The *Mercy Blood Component/Product Issue and Administration form* is kept in the blood fridge attached to a unit of blood product or in patients' notes if previous unit already transfused. If a discrepancy exists on any of the documentation or on the

information attached to the blood product, notify Theatre or PACU Coordinator, NZBS Personnel, Surgeon and Anaesthetist and appropriate action will be taken.
NB: Ballasts are to be placed in the blood fridge immediately on arrival, in a plastic bag with the date and time attached.

- When retrieving blood from the blood fridge a date, time, signature / destination is required to be written on the *Mercy Hospital Blood Product Form (App:5)* held on the clipboard attached to the Blood fridge. This is to ensure that there is a robust audit trail for all blood products.

- Red cells cross match expiry date is generally up to 72 hours. After 72 hours a new cross match must be completed. (Platelets, FFP and Cryoprecipitate cannot be stored in any Fridge including the Mercy Blood Fridge).

- Never store blood components in the standard ward refrigerator.

- All Blood components (except Platelets) should be infused within four hours of being removed from refrigeration. Platelets must be used immediately upon arrival from blood bank.

If returning blood to Blood Bank, Dunedin Hospital (see appendix 9) – *Return of Blood to Blood Bank Checklist (App: 9)*

- Complete the *Mercy Hospital Blood Product Form* on the clipboard on the side of the blood fridge to record which individual units are being returned
- Complete
  - *Mercy Hospital Return of Blood Product Declaration Form (App 14)*
  - *Check all steps completed on Return of Blood to Blood Bank Checklist (App: 9)*.
- All blood must be returned following the *NZBS Blood Packaging Training and Information Pack* located in Red Folder by Blood Fridge.
- Complete taxi chit and phone for taxi. Take items for NZ Blood Service to Main Reception for pick up.

6. Pre Transfusion Prompts

Once blood obtained, prior to commencing the transfusion you must ensure the following have been checked:

- **Consent**: sighted Patients consent form
- **Prescription:** signed and relevant written information provided
- **Patent venous access and standard blood infusion set with filter in situ**
- **Baseline observations:** documented

- Mercy Hospital Medicines management policy requires **two registered health professionals,** to complete the checks for blood products at the patient's bedside. The second person needs to perform the checks independently. There must be no discrepancies.

Bedside check: Ask, verify, bag to tag and visual check

- Take to the bedside:
    - The medication chart (prescription),
    - *Mercy Blood Component/Product Issue and Administration form (App:1)*
    - The issued cells with a swing label attached.

Complete the **Blood Issue and Administration Record** documentation as outlined in the bedside check process below on the NZBS copy of the *Mercy Blood Component/Product Issue and Administration form (App:1)*.

- **Ask** the patient their identity (their full name and date of birth). Do not tell him or her.

- **Verify** that the patient details on the patient's wristband, the *Mercy Blood Component/Product Issue and Administration* form, the prescription, the swing label and the patient's response all match exactly.

- **Visual check** - assess the bag and contents for abnormalities.

- Check Unit/Batch numbers on Bag & Swing label are identical

- Check Blood Group on Bag & Swing label are identical

- Check expiry on Bag/Bottle

- Check "DO NOT USE AFTER" date on Swing Label

- Check Consent

- Check Prescribed

- When the checks are completed, both checkers sign the *Mercy Blood Component/Product Issue and Administration form* and record the date and time the infusion commenced. In addition when the unit is completed also record the time on the *Mercy Blood Component/Product Issue and Administration form.*

7. Administration

Transfusions at night (after 2200 hours) are undesirable and not recommended unless urgent.

30 Minute Rule: Transfusion or red cells should begin as soon as possible following the removal from the blood fridge. Return the red cells to the Mercy blood fridge if the transfusion cannot be started within 30 minutes of removal of the blood from the blood fridge. Do not store red cells anywhere else.

When administering platelets and red cells, administer the platelets first. If this is not possible, change the infusion set after administering the red cells and before commencing the platelet transfusion.

- All blood components or products require a dedicated line. The recommended cannula size is 18-20G for adults (smaller gauges can be used but they restrict the flow rate) and 22-24G for children.
- No medications are to be given into the unit of blood or the IV system as they may cause red cell haemolysis or adversely affect platelets or plasma proteins.
- Blood / Solution set includes a 200 micron filter and must be used for administration of all blood components - Red blood cells, Plasma, Platelets, Cryoprecipitate and Granulocytes. The filter will remove any aggregated material and fibrin clots. All blood components in New Zealand are leucodepleted at source by NZBS. The use of bedside leucodepletion filters is not necessary.
- Blood components are supplied in collapsible bags and must never be vented, this is to mitigate the risk of air emboli. A warning "Do not vent" is noted on every unit label.
- 2-4 units can be administered via one infusion set. Where the rate is rapid, e.g. theatre, 8-10 units may be administered via the set;
- The Blood/Solution Set must be replaced at the end of the transfusion, before any further IV therapy is undertaken.
- Note that glass bottles also need to be vented with v-air vent filter (see NZBS Clinical Data Resource)
- Prime the infusion set with Normal Saline or the blood component. Priming with blood must only occur after 2 health professionals (one of whom must be registered) complete the two person check at the bedside
- Never prime or flush using Dextrose Saline (causes haemolysis) or Lactated Ringers (causes clotting) or gel solutions (causes clotting).

- Remember to document any normal saline used to prime or flush on the fluid balance chart.

Warming

Use only if clinically indicated.
A blood warmer may be indicated for:

- Large volume rapid transfusions of >50 mL/kg/hour in adults or >15 mL/kg/hour in children
    - Exchange transfusions (unlikely at Mercy)
    - Patients with clinically significant cold agglutinins
- Blood and components must not be warmed above 41ºC. The temperature of the warmer must be monitored and recorded on the observation chart.
- We have a Ranger Blood/Fluid warming device that is kept in the Theatre 6 Anaesthetic room.
- Never improvise by placing a blood pack into hot water or a microwave.

Pumps

- Pumps should be used to deliver blood products when:
    - Controlled flow rates are required for specific patients, e.g. paediatric patients, or those at risk of fluid overload.
    - Infusion of blood products via gravity is unreliable e.g. via PICC or small gauge cannula.
    - Ensure pumps are blood compatible. Never use pumps with granulocyte/buffy coat infusions.

Pressure Bags

An external pressure bag may be used during emergency situations only and when a large gauge venous access cannula is in situ. Pressure must be exerted evenly over the unit and never exceed 200mm Hg. The pressure device must have a gauge to measure the pressure and be monitored at all times during its use. Monitor closely, the risk of air emboli is higher with external pressure bags.

Commencing the infusion

Ensure the baseline observations BP/TPR (temperature, pulse, respiration & blood pressure) are recorded up to 60 minutes prior to the infusion on the observation chart. If the patient is febrile before transfusion you must discuss with the medical staff before commencing the transfusion.

Asepsis technique (wear gloves)

Gently agitate the blood bag;
Attach the red cell bag to the Blood /Solution Set
Record start time on the Medication chart and the Mercy Blood Component / Product Issue and Administration Form
Set the transfusion rate as prescribed; in the routine setting, transfuse each unit slowly (up to 50mL) for the first 15 minutes and observe the patient for any adverse reaction.
Stay with the patient for the first 15 minutes of the transfusion then repeat the TPR/BP.
The first **15 minutes carry the greatest risk of an acute adverse reaction;**
Ensure the call bell is within reach.

Completing the infusion

Note the completion time on the observation chart, the *Mercy Blood Component/Product Issue and Administration* form and the *fluid balance chart*.

Affix the red cell compatibility sticker (swing label) to the *Mercy Blood Component/Product Issue and Administration* form.

Disconnect the empty blood bag and discard into the appropriate waste stream.

1. In the event there has been a Transfusion related Adverse Reaction the blood bag and IV tubing must be placed within a sealed biohazard bag and left in the box provided opposite the blood fridge in the Theatre suite. McAuley staff will leave in dirty utility room in a sealed biohazard bag. The unit must be returned to Blood Bank along with a completed *NZBS* Acute Transfusion Reaction (ATR) Notification to Blood Bank and patient's blood sample in pink top tube (refer to adverse reactions in this policy). Document the transfusion in the patient's clinical record.

8. Monitoring

TPR & BP at 15mins then, ½ hourly TPR and hourly BP until the transfusion is completed. Increase the frequency of the BP recording ½ hourly if there are any concerns over the patient's status or any other parameters are abnormal.

Remain in the room or in immediate proximity for the first 15 minutes of the commencement of each unit. Let the patient know to call a nurse if they start to feel itchy, develop a rash, shivery, and have any breathing difficulty or if they feel their heart is racing.

For *each unit*: Repeat TPR and BP at 15 minutes. Thereafter monitor TPR every 30 minutes and BP hourly. Increase BP monitoring if condition changes. Visually assess through-out the infusion

After each unit: record pulse, blood pressure, respiration rate and temperature and visual observation of the patient's appearance and condition up to 60 minutes post infusion.

If the transfusion rate is slow, reposition the limb where the IV is sited, investigate other variables including gravity, non-patent cannula, clogged filter and closed clamps.

Check the IV site before, during and after the transfusion. Document the VIP Score on the Observation Chart.

1. Adverse Reactions (please utilise the information on the reverse side of the *NZBS* Acute Transfusion Reaction (ATR) Notification to Blood Bank *(App:3)*

For blood and NZBS notification of suspected adverse reaction to a fractionated blood product ref: *NZBS Notification of a Suspected Adverse Reaction to a Fractionated Blood Product (App: 4)*

***Note** Refer to NZBS Clinical data Resource on SharePoint (Learning and Development) for information about types and management of transfusion reactions.

Obtaining Blood Products in Adverse Weather

Delivery of blood from Dunedin Hospital will be required if theatre is running. Liaise with the Theatre Coordinator as to what is required and use the 4WD for pick up.

9. Obtaining Blood Products After Hours

- Blood Bank Staff are on-call from midnight to 0700 (7 days)
- Follow the usual process for ordering blood products as per the laminated flow chart – NZBS: Blood Product Request: Process and Paperwork; AND
- Phone Dunedin Hospital Switchboard (474 0999) and ask to be put through to the on-call person.
- Order a taxi to take the blood specimen to Dunedin Hospital for crossmatch. Ask them to meet you at the Mercy ambulance entrance, they will communicate via the intercom with McAuley Ward.
- Taxi will deliver the ordered blood product to the ambulance bay entrance. They will communicate via the intercom with McAuley Ward.
- Check Blood products into the Mercy Blood Fridge as usual.

NB: McAuley Ward staff must know that a specimen for crossmatch or that blood products have been ordered as they monitor the ambulance entrance intercom.

Blood Transfusions during Closedown

- There will be no access to the blood refrigerator during hospital closedown.
- During this period Mercy Cancer Care will request each unit of blood/blood products one at a time from the Blood Bank.
- When ordering blood product, call the Blood Bank and advise them to deliver blood products directly to Mercy Cancer Care.
- Mercy Cancer Care staff must advise taxi drivers to report to Manaaki Reception via intercom at Manaaki front door.

10. EMERGENCY O RhD Negative Red Cells – for ACUTE HAEMMORHAGE ONLY

Points of note:

Mercy Hospital is supplied with two units of O RhD negative units, to be used for acute haemorrhage only.

The units of blood are exchanged with Blood Bank weekly

All movements into and out of the Blood Fridge MUST be documented in the *Mercy Hospital Emergency Blood Product Form (App:17)* and on the unit *Tracking Form* to ensure 100% traceability and to confirm temperature standards are met.

Obtaining Emergency O RhD Negative Red Cell Inventory from NZBS

Underlying inventory principles and agreement:

1. Two units of emergency O RhD negative red cells will be issued weekly (exchanged) on Tuesdays, by Dunedin Blood Bank for Mercy Dunedin.

2. Reception will notify PACU staff when the replacement red cell inventory arrives via Dunedin Taxi Service.

3. The two emergency O RhD negative red cells units held in inventory will be returned to Dunedin Blood Bank, directly after the safe receipt and storage of the new units.

Checking of Mercy Blood Inventory – see Appendix 18

- Check each unit against the *Component/Product Issue Form* from Blood Bank, including:
    - Unit numbers
    - Number of units issued
    - Blood group and RhD status
    - Expiry date of the unit
    - 'Group Confirmed' sticker is attached to each blood unit (Swing Label)

- Place the checked *Component/Product Issue* form onto the clipboard beside the Blood Fridge

- Complete the
    - NZBS *Tracking Form* attached to each unit
    - *Mercy Hospital Emergency Blood Product Form (App:17)*

- Place the units into the Blood Fridge
    - Blood bank supply each emergency unit as a sealed 'pack', which includes all necessary paperwork. Store as a complete 'pack', do not separate the items.

- If there is any discrepancy, notify the blood bank immediately on 03 470 9369.

Traceability of Emergency O RhD Negative Red cells

- The *Notification of Transfusion of Emergency Blood* form must stay with the Emergency O RhD negative red cells packs at all times, to ensure compliance to traceability mandates.

- When emergency units are used:
    - Notify Dunedin Blood Bank 03 470 9369 without delay, to ensure inventory replacement can be progressed
    - Complete and email the "Notification of Transfusion of Emergency Blood" form located within the red cell 'pack', to ensure 100% traceability

  Ensure the unit swing label is permanently attached to the *Mercy Blood Component/Product Issue and Administration form* (*App: 1)*

It is mandatory to link the patient details (recipient) to the unit number details (donor).

Return of Emergency O RhD Negative Blood Inventory to Blood Bank – see Appendix 19

– Mercy Hospital Blood Policy and Processes

- Blood Bank will exchange emergency O negative red cells weekly; they will determine what units are to be returned to minimise blood wastage
- Follow the Blood Packing Profiles for return of blood

When the emergency blood inventory is ready to be returned to the Blood Bank, Dunedin Hospital – refer to Appendix 19 and utilise the *Return of Blood to Blood Bank Checklist (App: 9)*

- Complete the *Mercy Hospital Emergency Blood Product Form* on the clipboard beside the blood fridge to record which individual units are being returned
- Ensure the unit Tracking Form is completed
- The correct Blood Bank *Component/Product Issue* form, located on the clipboard beside the Blood Fridge, is to be placed in the box with the blood
- Complete *Mercy Hospital Return of Blood Product Declaration Form (App 14)*
- *Check all steps completed on Return of Blood to Blood Bank Checklist (App: 19)*.
- All blood must be returned following the *NZBS Blood Packaging Training and Information Pack* located in Red Folder by Blood Fridge.
- Complete taxi chit and phone for taxi. Take items for NZ Blood Service to Main Reception for pick up.

If in doubt or unclear ring Blood Bank on 03 470 9368 for advice.

When the hospital is to close, i.e. Christmas Holidays, notify Dunedin Blood Bank, return all units and arrange for delivery of emergency units when hospital reopens in January.