



TRANSFUSION MEDICINE PROTOCOLS

Autologous and Direct Blood Donation – Information for Clinicians

This document should be read in conjunction with the [Disclaimer](#)

Aim

To provide information on requests for Autologous or Directed blood donation.

Description

The Australian Red Cross Blood Service (ARCBS) no longer routinely provides an autologous blood donation service. [ARCBS Directed Donations Information Document 2010](#)

All queries or requests for Autologous or Directed Blood Donation should be referred for consideration by the Australian Red Cross Blood Service Transfusion Medical Specialist.

It is the firm policy of the WNHS that Directed Donation is also discouraged for the following scientific reasons:

- In terms of viral safety, Australia has one of the safest blood supplies in the world due to advances in viral testing and the use of a signed donor declaration to reveal high-risk activities (which carries a heavy penalty for false information).
- There is no evidence that blood from Directed Donors is any safer than blood from Volunteer Donors attending the ARCBS. There is published evidence to the contrary. A Directed Donor asked to give blood for a family member is often under significant pressure to donate and more likely to conceal high-risk activity.
- Non-viral risks, such as bacterial sepsis, haemolytic reactions, anaphylaxis, TRALI, etc, are not reduced by Directed Donation.
- There is a documented increased risk of fatal graft versus host disease (GvHD) in blood transfusions from donors who share HLA haplotypes with the recipient e.g. family members. Transfusion related GvHD has also been documented in immunocompetent recipients. This mandates the need to irradiate all Directed Donor Blood Products. Irradiation also greatly reduces the shelf life of red cell products.

- The use of family Directed Donations must be avoided if the recipient may undergo a future haematopoietic stem cell transplant as there is an increased risk of graft rejection due to HLA sensitisation.
- ABO, Rhesus (D) and K blood group compatibility between donor and recipient is mandated before use. However, this does not prevent the formation of antibodies against other red cell antigens. In particular, Directed Donation from a man to his wife or female de facto partner is not recommended as she may develop antibodies against her partner, which could seriously affect a current or future pregnancy and cause haemolytic disease of the newborn.
- It is ARCBS policy not to use Directed Donations for other patients as they are considered to have a greater risk of transfusion-transmissible disease than Anonymous Volunteer Donations. All Directed Donations that are not used are destroyed. This is a significant wastage of resources, funds and staff time.

In summary, Directed Donor Transfusion Practice should be discouraged and the reasons for this made clear to the families involved. All current scientific data strongly supports the use of blood products from ARCBS Anonymous Volunteer Donors as best practice.

Documentation

If a patient wishes to discuss directed blood donation The surgeon or clinician in charge of the patient is responsible for:

- Discussing the request with the donor taking into account the advice given above.
- Ensuring the donor meets the ARCBS requirements. They must be an existing blood donor who has given blood at least twice within the last two years, OR Where the patient is under 18 years of age they must be a parent or legal guardian of the patient.
- Notifying the Transfusion Medicine Unit who will provide an ARCBS Directed Donation Request Form. Section A is to be completed and signed by the parent/legal guardian or patient over the age of 18 years and Section B by the requesting clinician, including the type of donation required and the irradiation requirement. A copy is to be filed in the medical record.
- Completing a PathWest Transfusion Medicine Request Form for a Directed Donation, FBP, GAH, K phenotype and CMV (when appropriate). This form must be clearly marked "Directed Donor for 'Recipient's full name, UMRN, DOB' and clinical details including the estimated day of transfusion or surgery.
- Referring the donor to the phlebotomy area (Transfusion Medicine Unit) with completed PathWest Transfusion Medicine Request and ARCBS Directed Donation Request Forms.
- Referring the patient to the ARCBS Transfusion Medicine Specialist for further discussion.

Criteria

- There must be a high likelihood that the intended recipient will need transfusion in the particular circumstance outlined in the request. Directed Donation is applicable in a limited number of medical settings.
- The circumstance should be planned to occur within a single episode of care. There should be a reasonable expectation of a definable transfusion requirement, which can be met by a Directed Donor. In practical terms, this will be a requirement for four units or less of Red Blood Cells (RBC).
- The request for Directed Donation should be made to ARCBS at least one week prior to the intended transfusion. Greater advance notice will be required when more than one unit of blood is requested.
- Pre-transfusion testing, blood product administration, investigation of transfusion reactions and all other procedures relating to the transfusion of Directed Donations will proceed as per established Health Service protocols for the transfusion of homologous blood.
- All Directed Donations will be irradiated to reduce the risk of transfusion-related graft versus host disease.

The following donor selection criteria must be satisfied prior to referral to ARCBS:

- BLOOD GROUPING - ABO, Rh D and K typing must be performed on samples from the intended recipient and the potential donors. The intended donor must be ABO, Rh D and K compatible with the recipient.
- ANTIBODY SCREEN - A red cell antibody screen must be performed on samples from the intended recipient and the potential donors. The antibody screens must show compatibility.
- CYTOMEGALOVIRUS (CMV) - The requirement for CMV negative blood is determined by the recipient's clinician. Where CMV negative blood is required, potential donors will undergo CMV antibody testing.
- PREGNANCY AND BREASTFEEDING - Blood donation is generally contraindicated during pregnancy and while breastfeeding. Refer queries to the ARCBS Transfusion Medicine Specialist.
- QUANTITATIVE CRITERIA - The frequency of venesection will be determined by the ARCBS. This decision will be taken according to the donor Haemoglobin level and the anticipated blood requirements detailed by the clinician.

Informed Consent

The parent/legal guardian/patient over 18 years old will be provided with information [Directed Donation – Information for Parents/Donors](#)

References




- ARCBS Directed Donations Information Document 2010
http://www.transfusion.com.au/blood_basics/collection/directed_donation/requirements
- 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>

Related policies

- National Safety and Quality Health Service Standards, October 2012. [Standard 7: Blood and Blood Products](#)

Related WNHS policies, procedures and guidelines

- N/A

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