

Title:

**SECTION 7.0 NZBMDR STANDARDS
PROCESS FOR DONOR IDENTIFICATION**

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FORMS

Preliminary Search Request	Form 110
Cancellation of Search	Form 115

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**THE FINAL DECISION ON DONOR SUITABILITY ALWAYS RESTS WITH THE TRANSPLANT CENTRE.
ALL DECISIONS SHOULD BE MADE BY THE TRANSPLANT CENTRE IN CONJUNCTION WITH THE TISSUE TYPING CENTRE.**

DECISION POINTS

There are several decision points that are critical in conducting a successful search for a matched donor.

1 Family Search Request

This is the first step in the search for a stem cell donor and may be conducted independently of the NZBMDR. However the NZBMDR will organise Tissue Typing of family members both in New Zealand and overseas if requested.

An initial request is made to the Tissue Typing Centre from the physician or Transplant Centre for HLA typing of the patient, siblings and/or parents.

A report is issued by the Tissue Typing Centre with patient and/or immediate family tissue types. Where possible this should report the patient haplotypes.

2 Extended Family Search

The aim of an extended family search is to explore the possibility that relatives other than siblings may be suitable as stem cell donors for patients with haematological disorders, who do not have a suitable sibling match. The decision to conduct an extended family search should be made following discussion between the Transplant Centre and the Tissue Typing Centre. The availability of unrelated donors may influence this decision.

2.1 One antigen mismatch related transplants

If a one antigen-mismatched transplant from family members is considered, then patients who have 'incomplete' common haplotypes should also be considered for extended family searches.

2.2 Haploidentical transplants

Haploidentical related stem cell donors are mismatched at 3 of 6 loci (HLA-A, -B and -DR). A potential advantage of using such donors may be the rapid identification of family potential donors, such as parents, siblings, and children. The choice of such a donor will depend on HLA type, CMV status, blood group, or other features with potential clinical implications. This may also allow for a shorter time to transplant (when there is not time to obtain a matched unrelated donor). As there is a possible increased risk of transplant-related complications, the choice of such a donor will depend on the expertise of the transplant centre.

3. Unrelated Donor Search Request

3.1 WMDA Search and Match preliminary search

The WMDA Search and Match website contains a database of donors registered on volunteer bone marrow donor registries and cord blood banks throughout the world. A search of this database is free, instant, and allows the search centre to see if potential unrelated donors may be available.

3.2 Formal Search

- i) The initial request for an unrelated search comes from the patient's physician.
- ii) Before a formal unrelated search is commenced the referring physician must consult with a Transplant Centre in order to register the patient on a transplant waiting list.
- ii) Preliminary Search Request Form 110 must be completed

3.3 Patient Final Typing

To avoid instances where apparently successful searches are performed but where the patient typing is changed as a result of re-typing at a later stage, each patient must undergo confirmatory typing prior to extended typing being requested from unrelated donors. The patients must be typed on a minimum of two occasions, using two separate blood samples. An antibody screen will be performed at Confirmatory typing stage to ensure there are no Donor Specific Antigens (DSA)

A report will be issued by the Tissue typing Laboratory stating that the typing has been confirmed.

3.4 Search Progress

NZBMDR will contact Registries which identify potential donors or cord blood units (CBU) requesting a preliminary search. This search will give details of age and gender.

Preliminary search results are issued within 48 hours

NZBMDR will communicate with the referring physician and/or the Transplant Centre reporting the availability and match degree of potential donors and/or CBU.

4.0 Searches for Unrelated Adult Donor

4.1 Additional typing requests on donors

If time permits and there are no A,B,DR matched NZ donors identified, Class 1 matched NZ donors may be class 2 typed at the expense of the NZBMDR

If the search is urgent, additional typing, or a Verification Typing sample (VT) will be requested from registries with A, B, DR matched donors.

4.2 Donor Verification Typing

Before a donor can be requested for HPC donation to a NZ patient the NZ Tissue typing laboratory must verify the tissue typing on a blood sample sent from the donor centre. If a NZ donor matches a patient from overseas a blood sample will be sent to their tissue typing laboratory for verification typing.

This testing Must be on a sample different to that taken at recruitment

The Verification Typing report issued by the Tissue Typing Laboratory must be sent to the Transplant Centre

4.3 Donor Reservation and Feedback

Donors should be contacted no later than **eight weeks** after a verification typing sample was drawn to give them an update on the progress of the testing. NGS typing will be performed

A donor, from whom a VT sample has been tested, is flagged for a total period of **ninety (90) days (three months)**. It is expected that all verification matching will have taken place within this time and the selection of a donor can be made.

First release

One donor may be selected to hold for a further **six months if requested**. All other donors are released back onto the registry after the ninety (90) day period. Donors may also continue to donate blood routinely after this ninety day period.

Second release

After nine months a first option procedure will be instituted and this is recorded on the Donor Notes section on Matchpoint.

The first option procedure means that the donor is released back into the pool and is available for searching by other patients. However, if the donor matches another patient the original or first patient is given first option to use that donor. If the first Transplant Centre wishes to retain this donor they should provide the registry with a clinical update and an estimate of the anticipated time to transplant.

Communication of period of reservation

When the automated period of reservation as per Matchpoint an EMDIS message is sent to the requesting HUB.

To extend a reservation an Email will be sent to NZBMDR or an extension is requested through EMDIS

The Medical Advisory Committee will arbitrate any unresolved problems, particularly when medical urgency needs to be considered

4.4 Transport of Adult Haematopoietic Stem Cells

NZBMDR or the Transplant Centre will provide trained couriers to transport all stem cells from adult donors for NZ patients. See Chapter 14 Courier Guidelines

5.0 Search for Unrelated Cord Blood Units

5.1 Additional information and typing on selected Cord Blood Units

A unit report will be requested on selected CBUs which have sufficient Total Nucleated Cells and are matched at a level acceptable to the transplant centre. Cords may be selected which are 4/6, 5/6 or preferably 6/6 HLA matches. A minimum of high resolution typing at Class 1 and DRB1* is required.

If several cords are available high resolution HLA *C typing should be considered.

5.2 Cord Blood Unit Confirmatory Typing

Each Cord Blood Bank has its own search protocol which must be followed.

On request of a unit, verification typing and quality assurance testing will be performed.

5.3 Transport of Cord Blood Units

NZBMDR or the transplant centre representative will travel to Australia to collect CBUs.

Units from other overseas Cord Blood Banks will be transported by World Courier.

6.0 Continuing Searches when no donor has been identified

The WMDA Search and Match website is updated each month. A search for all current patients will be conducted monthly to identify new potential donors on all other registries.

7.0 Cancellation of Search

It is important that once a patient is on the search list, removal is an active process.

The decision to terminate a search may only be made by:

- i] The referring physician, with the agreement of the patient;
- ii] The Transplant Centre, with the agreement of the referring physician and the patient.

To terminate a search written communication should be sent to NZBMDR.