HÉMA-QUÉBEC

STEM CELL DONOR REGISTRY

Guide for International Registries

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1. INTRODUCTION

1.1 What is the Guide for International Registries?

The guide describes the processes surrounding:

- the search for compatible Héma-Québec unrelated donors and cord blood units (CBU);
- the selection of Héma-Québec donors and their preparation for donation;
- the purchase of Héma-Québec cord blood units.

Its purpose is to describe the minimum requirements that must be met in order to comply with Héma-Québec's minimal criteria, the regulations and standards established by Health Canada and the World Marrow Donor Association (WMDA).

1.2 The Héma-Québec Stem Cell Donor Registry

Héma-Québec is responsible for the Stem Cell Donor Registry in Canada, which includes a list of unrelated donors and the only Public Cord Blood Bank in the province of Québec.

It provides stem cells in Canada and abroad. Its services include coordinating all the steps related to stem cell requests, from the search to the transplant:

- donor recruitment;
- maintenance of the Québec unrelated donor database;
- search for compatible unrelated donors and cord blood units for recipients in Québec and abroad;
- preparation of donors selected for donation;
- stem cell collections;
- banking and distribution of cord blood units;
- human leukocyte antigen (HLA) typing;
- infectious disease markers testing.

The Héma-Québec Stem Cell Donor Registry team is comprised of:

- a medical director;
- a department director;
- a department manager;
- case managers;
- medical secretaries;
- clerks;
- a scientific director.

1.3 Application of standards and regulations

The information contained in this section is aimed at maximizing the quality of stem cell products prepared for recipients and the safety of Héma-Québec's stem cell donors.

1.4 Héma-Québec's partner hospitals

As an organization qualified by the WMDA, Héma-Québec must ensure that the transplant centres (TC) and collection centres (CC) under its supervision comply with the WMDA standards that apply to them. For more details, refer to the WMDA Web site: **www.wmda.info.**

The CCs and TCs affiliated with Héma-Québec must be registered as establishments with Health Canada and comply with the Safety of Human Cells, Tissues and Organs for Transplantation Regulations. For more information, consult the Health Canada Web site: **www.hc-sc.gc.ca.**

Under these Regulations, the CCs are also required to comply with the standard sections of the Canadian Standards Association (CSA) referenced therein:

- Cells, Tissues and Organs for Transplantation: General Requirements (Z900.1); and
- Lymphohematopoietic Cells for Transplantation (Z900.2.5).

For more information: consult the CSA Web site: **www.csagroup.org.**

Héma-Québec's partners are required to follow industry best practices. They must also meet the standards of the Foundation for the Accreditation of Cellular Therapy (FACT), as per their agreement with Héma-Québec. To consult the FACT standards and requirements visit: **www.factwebsite.org.**

Héma-Québec performs regular audits of its partner hospitals to ensure that they adhere to the applicable regulations.

1.5 International registries

Registries requesting donors and cord blood units from Héma-Québec are required to be members of the WMDA and follow minimal quality standards to ensure product and patient safety.

1.6 Transplant centres not affiliated with a donor registry

Any requests for Héma-Québec donors and cord blood units by TCs that are not affiliated with a WMDA registry will be assessed by the appropriate Héma-Québec representatives. Those TCs will need to provide detailed information on their activities and go through an approval process before the Héma-Québec registry proceeds with their requests. This assessment is based on WMDA recommendations establishing criteria for the evaluation of (TCs).

2. CRITERIA FOR REQUESTING HÉMA-QUÉBEC DONORS AND CORD BLOOD UNITS

2.1 HLA typing and compatibility

A stem cell transplant may take place only when a donor's HLA typing matches that of a recipient. The minimum typing requirements for proceeding with a transplant are high-resolution HLA-A, HLA-B, HLA-C, HLA-DRβ1 for unrelated donors, and low-resolution HLA-A, HLA-B, and high-resolution HLA-DRβ1 for cord blood units.

The minimum compatibility required between a recipient and a donor is 7/8 at high-resolution for each loci HLA-A, HLA-B, HLA-C, HLA-DRβ1. For cord blood units, the minimum compatibility required is 4/6 at low-resolution for loci HLA-A, HLA-B and high-resolution for HLA-DRβ1.

2.2 List of approved diagnoses

To allow the use of an unrelated donor from the Héma-Québec registry, the recipient's diagnosis must be included in the pre-approved indications for HPC transplantation listed below. Any other diagnosis will be subjected to evaluation by Héma-Québec's medical approval committee.

CATEGORY	DIAGNOSIS
Aplasia	Fanconi anemia (FA)
	Severe aplastic anemia (SAA)
	Paroxysmal nocturnal hemoglobinuria (PNH)
	Marrow failure
	Congenital aplastic anaemia
	Refractory anemia / Myelodysplastic Syndrome (MDS)
	Agnogenic myeloid metaplasia / Myelofibrosis (MF)
Congenital immune system disorders	Severe combined immunodeficiency (SCID)
	Combined immunodeficiency (CID)
	Omenn syndrome
	Wiskott-Aldrich syndrome (WAS)
	Ataxia telangiectasia (AT)
Histiocytic disorders	Histiocytosis
	Hemophagocytic Erythrophagocytic Lymphohistiocytosis (HLH)
Inherited erythrocytic abnormalities	Thalassemia
	Sickle Cell Disease

CATEGORY	DIAGNOSIS
Inherited metabolic disorders	Hurler's syndrome
	Hunter's syndrome
	Adrenoleukodystrophy (ALD)
	Krabbe disease
	Niemann-Pick disease
Inherited platelet abnormalities	Amegakaryocytosis / Congenital thrombocytopenia
	Glanzmann thrombasthenia
Leukemia	Acute Lymphoblastic Leukemia (ALL)
	Acute Myeloid Leukemia (AML)
	Acute Undifferentiated Leukemia
	Chronic Lymphocytic Leukemia (CLL)
	Chronic Myeloid Leukemia (CML)
	Plasma cell leukemia (PCL)
	Other leukemia
Lymphoma	Hodgkin lymphoma (HD or HL)
	Non-Hodgkin lymphoma (NHL)
Myelodysplasia - Myeloproliferative disorders	Juvenile myeloid leukemia (JML)
	Myelodysplastic syndrome (MDS)
Other inherited disorders	Osteopetrosis
Plasma cell disorder	Multiple myeloma (MM)
	Plasma cell leukemia (PCL)
	Waldenstrom's macroglobulinemia
	Autoimmune lymphoproliferative syndrome (ALPS)
Autoimmune disease	Scleroderma
Other	Neuroblastoma
	Ewings Sarcoma
	Granulocytic sarcoma

2.3 Confidentiality requirements

2.3.1 General

As per our privacy policy, Héma-Québec protects the anonymity of the donor and the recipient in accordance with laws and regulations. International registries working with Héma-Québec are expected to also follow laws and regulations of their country and to collect, store, manage and share data with the utmost care.

Communication between Héma-Québec and other registries is expected to be performed while ensuring donor and patient confidentiality.

2.3.2 Confidentiality during the transplant preparation process

Staff involved in treating the recipient must refrain from disclosing information that could be used to locate or identify the donor.

2.3.3 Confidentiality during transport

Only people who are directly involved in the collecting or transporting of the product are allowed to know the identity of the person transporting the stem cell product (courier). The courier must not have any contact with the donor, recipient or anyone who has a personal relationship with them. Documents, gifts or photos must not be given to the courier to be exchanged between the donor and recipient.

It is up to the courier to ensure that no information appearing on the product or container compromises the donor's or recipient's confidentiality (name, country of origin, etc.) and that only the donor number appears on the product.

2.4 Correspondence and exchanges between the donor and the recipient

2.4.1 Anonymous correspondence between the recipient and the donor

After the transplant, anonymous exchanges between the donor and the recipient are allowed. The exchange of personal information is allowed only if there is mutual consent between the donor and the recipient, and the post-transplant waiting period specific to each registry is respected. For Héma-Québec, this period is one year following the last donation.

The registry must ensure that no personal information (name, age, address) is included in any correspondence between the recipient and the donor.

Héma-Québec ensures that no personal information is disclosed and verifies the content in order to maintain confidentiality. Gift exchanges are not allowed.

2.4.2 Request for exchange of personal information coming from a Héma-Québec donor

At the donor's request, Héma-Québec informs the registry that the donor would like information about the recipient.

In the event of the recipient's death, a family member may exchange personal information with the donor.

Ideally, the registry should notify Héma-Québec when the recipient or the recipient's family refuses to send any information. If the recipient or the family agrees, Héma-Québec will send the recipient's personal information to the donor.

2.4.3 Request for exchange of personal information coming from a recipient

In response to the recipient's request via their registry:

- Héma-Québec will begin the procedure for obtaining the donor's consent;
- upon receiving the consent form signed by the donor, Héma-Québec will send the donor's personal information to the registry.

Note: Héma-Québec does not permit contact between a recipient and a mother who donated a cord blood unit to the Public Bank. The terms mentioned above are only applicable to unrelated donors who donate peripheral blood stem cells and bone marrow.

3. COMPATIBLE DONOR SEARCH

3.1 General

Héma-Québec performs donor and cord blood unit searches form the Héma-Québec registry database for international recipients.

Héma-Québec launches the search for any new request within one working day of receiving it, if all the mandatory information is provided.

3.1.1 Initiating a search

To perform a search for unrelated donors, the registry must complete and send to Héma-Québec the following documents:

- Form “Preliminary Search Request” (ENR-01560) or «Demande de recherche» (ENR-01564) or its equivalent

Important: This form must be duly filled out in order to conduct a donor/CBU search, and it must contain the following information:

- recipient’s first and last name;
- recipient’s registry ID;
- date of birth and sex;
- diagnosis and date of diagnosis;
- type of search: donor, cord blood or both;
- if mismatches are accepted, indicate which loci;
- recipient’s weight (mandatory when a cord blood unit is requested for testing);
- recipient’s origin:
  - for example, Caucasian, Asian, Hispanic, etc.;
  - enter “other” if unknown;
- signature of the physician (or representative).

The registry will then be provided with a donor and/or CBU summary that will include a list of potentially compatible donors and CBUs for their patients.

3.1.2 Search reruns

Héma-Québec may perform search reruns for international patients upon request from the registry.

3.1.3 Search cancellation and reactivation

If the registry would like to cancel a search, it must complete the form “Search Cancellation” (ENR-01638) or «Fermeture de recherche» (ENR-01637) or its equivalent and send it to Héma-Québec.

To reactivate a search, the registry must provide a new search request to Héma-Québec using form “Preliminary Search Request” (ENR-01560) or «Demande de recherche» (ENR-01564) or its equivalent.

3.2 Requests for Héma-Québec unrelated donors

3.2.1 Extended typing

The registry may request extended typing (ET) on potentially compatible unrelated donors by providing an ET request. Héma-Québec’s HLA laboratory is accredited for the American Society for Histocompatibility and Immunogenetics (ASHI) and will perform all HLA testing requests on Héma-Québec’s unrelated stem cell donors.

The request must include the following:

- patient name and ID
- HLA loci to be analysed at high resolution among the following:
  - HLA-A
  - HLA-B
  - HLA-C
  - HLA-DRβ1
  - HLA-DQβ1
  - HLA-DPβ1

3.2.2 Donor blood samples for verification typing

The registry may request verification typing (VT) on potentially compatible unrelated donors for their patients by providing a VT request. The request must include the following:

- patient name and ID
- donor ID
- number of blood samples needed (max. 50 mL allowed)
- address of delivery

A VT request includes the following:

- preliminary assessment of the donor’s medical and behavioural history which may increase the risk of communicable diseases;
- shipping of blood samples;

- infectious disease markers tested in accordance with Health Canada's regulations:
  - Syphilis
  - Anti-CMV total
  - Anti-HTLV-I/II
  - Anti-HCV
  - Anti-HIV 1-2
  - AgHBs
  - Anti-HBc
  - NAT HIV-HCV-HBV
  - NAT WNV
- ABO/Rh testing;
- weight;
- travel history;
- blood transfusion history.

Héma-Québec donors will be reserved for 90 days after the sample collection date. Following this period, the donor is no longer reserved unless the reservation is extended by the registry.

3.2.3 Other requests

Registries may request other types of tests or samples. Those requests (eg. infectious disease markers) will be reviewed on a case-by-case basis according to regulations and feasibility.

4. STEM CELL DONATION REQUEST

4.1 General

Once the VT is completed, the donor can be requested for donation.

All communications or correspondence between the TC/registry and the CC must go through Héma-Québec. Exchanges between TCs and CCs may be authorized by Héma-Québec only in exceptional circumstances.

Four to six weeks should be allowed between the time that the donor is selected and the collection date.

Important: The registry must notify Héma-Québec as promptly as possible when the recipient's medical condition changes: deterioration of the condition, transplant cancellation, postponement of the transplant date, death or if the recipient is no longer eligible for a transplant. This is in the donor's best interest and prevents unnecessary pre-transplant evaluation, G-CSF injections or blood samples collections.

4.2 Urgent requests

In emergency situations, the registry may request that the VT and donation request be done simultaneously. Delays may vary according to the availability of the donor and the CC.

Note: The TC/registry must take into consideration the risk associated with the potential discovery of an unexpected HLA discrepancy in their plan of action.Important: the VT results must be obtained prior to the recipient's preparatory regimen and first donor G-CSF injection (if applicable).

When the process of preparing the patient for a donation is under way, it is important for the registry to ensure that it can follow up with Héma-Québec within one working day to respond to questions or issues encountered.

4.3 Preparation of two donors simultaneously

Under exceptional circumstances, a registry may request that two donors be prepared for stem cell collection simultaneously,if the urgency is justified from a medical perspective. The registry must indicate which donor is the primary and the backup so that the donors can be informed.

4.4 Request to prepare an unrelated donor for donation

The following forms must be filled out by the TC/registry (or their international equivalent) when an unrelated donor is selected for stem cell collection:

- "Workup Request" (ENR-02650) or «Requête de préparation au don de cellules souches» (ENR-02649).
- confirmation of donor typing
- "Confirmation of Patient Typing" (ENR-02118) or "Confirmation du typage du patient" (ENR-02117).
- "Stem Cell Product Delivery Information" (ENR-01702) or «Informations sur le transport de cellules souches» (ENR-01700) or its equivalent.

4.4.1 Prescription and specifications

All requests, questions or specific requirements (e.g. quantity of cells, filtering, anticoagulant, etc.) must be specified on form "Workup Request" (ENR-02650) or «Requête de préparation au don de cellules souches» (ENR-02649), along with the prescription.

Note: The sampling method, cell count, filtering, additive and anticoagulant vary from one CC to another. The TC must specify in its initial request whether it needs a specific dose and whether it has other requirements. The CC will then evaluate whether it can accommodate the TC.

4.4.2 Pre-donation samples

The TC has the option of requesting blood samples at the time of the donor evaluation.

A maximum of 50 ml of blood can be collected from a Héma-Québec donor. Upon approval, this volume may be increased for scientific research purposes.

4.5 Workup plan confirmation

If the donor cannot be available on the proposed dates for the donation, Héma-Québec will suggest alternative dates. The TC and the registry must confirm in writing that they agree to the dates proposed and confirm the start date of the recipient's preparatory regimen.

Once the dates are confirmed, Héma-Québec will send the following information to the TC and the registry:

- the type of product that will be harvested (bone marrow or peripheral stem cells);
- the date of the medical examination, blood tests and virological marker analyses;
- the expected date of the final authorization for donation;
- the date and approximate time when the product will be available;
- the start date of G-CSF injections (if applicable);
- instructions for the courier;
- pre-collection sample details: company, shipment date and number (if applicable).

4.6 Donor evaluation

4.6.1 Medical questionnaire

Donors selected for stem cell collection must answer Héma-Québec's medical questionnaire. New donor information will be sent to the requesting registry, for example:

- preferences regarding the type of stem cell collection;
- donor availability;
- elements that can put the recipient in a high-risk situation, according to the applicable medical criteria. That information pertains to:
  - travel to endemic areas where diseases such as malaria, Chagas disease, West Nile virus and Zika virus in particular are rampant;
  - risk behaviours and communicable diseases;
  - blood transfusion history.

Note: The questionnaire may reveal a condition that could prevent the donor from making the donation.

4.6.2 Infectious disease markers

In Québec, the analyses of virological markers, including West Nile virus, are conducted on all donors asked to prepare for a donation. For donors who answer "yes" to one of the three questions regarding Chagas disease, the Chagas test will be conducted on their blood samples as well.

The following infectious disease markers are tested at Héma-Québec according to Health Canada regulations:

- Syphilis
- Anti-CMV total
- Anti-HTLV-I/II
- Anti-HCV
- Anti-HIV 1-2
- Anti-HBc
- HBsAg
- NAT HIV-HCV-HBV
- NAT WNV
- Chagas (if applicable)

Registries screen for infectious diseases in the 30 days prior to the stem cell collection, and the results are sent at the time of the final authorization for donation. However, the list of analyzed markers may vary depending on the registry. Any additional analyses required that are not included in the donor's evaluation must be requested when the workup is initiated.

4.6.3 Physical evaluation

The following diagnostic analyses are performed by a licensed physician at the CC in accordance with minimum Health Canada, FACT and WMDA standards, as well as other industry best practices:

- ECG and chest x-ray (if indicated and for any donor aged 40 or older);
- complete blood count with differential;
- biochemical profile: BUN, creatinine, electrolytes, liver function, blood glucose;
- pregnancy test for women of childbearing age;
- infectious disease markers (analysis performed by Héma-Québec);
- blood type and antibody screening;
- sickle cell anemia screening for Black, Mediterranean and Arab donors;
- any other analysis deemed necessary by the CC.

Note: If the CC physician determines that medical tests or an additional medical evaluation are required, Héma-Québec will immediately inform the requesting registry if those analyses or medical evaluations are likely to delay the donation or prevent the donor from proceeding with the donation.

4.6.4 Additional pre-donation sample analyses

If the TC requests pre-donation blood samples, these will be collected during the donor's physical evaluation at the CC and shipped in keeping with the registry's instructions.

Note: If the TC conducts additional infectious disease analyses, Héma-Québec must immediately be notified of any abnormal results.

4.7 Prescription verification

Before proceeding with the recipient's preparatory regimen, the TC must have confirmed the specifications of the collection proposed by the CC, filled out the appropriate section of the applicable form and sent it to Héma-Québec:

- "Verification of HPC, Marrow Prescription" (ENR-01690) or "Vérification de la prescription pour HPC, Marrow" (ENR-01796) or equivalent.
- "Verification of HPC, Apheresis Prescription" (ENR-01691) or "Vérification de la prescription de HPC, Apheresis" (ENR-01798) or equivalent.
- "MNC, Apheresis DLI Prescritpion Verification" (ENR-01693) or "Vérification de la prescription / DLI par aphérèse" (ENR-01797) or equivalent

Note: If the TC does not agree with the CC's specifications, they must reach a consensus prior to the recipient's preparatory regimen and prior to the donor's first G-CSF injection.

4.8 Determination of donor eligibility and clearance

4.8.1 Donor eligibility evaluation

The donor's eligibility will be determined on the basis of the following:

- medical questionnaire;
- medical history;
- virological markers;
- high-risk behaviours;
- travel;
- physical examination.

It is the CC's responsibility to ensure that the donor is eligible in accordance with the applicable regulatory requirements. It is the TC's responsibility to make additional requests in order to comply with both its internal policies and the country's regulations.

4.8.2 Donor final clearance

After receiving donor clearance to proceed with the donation, the following forms will be sent to the TC/registry by Héma-Québec:

- "Donor Clearance" (ENR-01679) or "Autorisation au don" (ENR-01800).
- "Verification of HPC, Marrow Prescription" (ENR-01690) or "Vérification de la prescription pour HPC, Marrow" (ENR-01796).

- "Verification of HPC, Apheresis Prescription" (ENR-01691) or "Vérification de la prescription de HPC, Apheresis" (ENR-01798) or "MNC, Apheresis DLI Prescritpion Verification" (ENR-01693) or "Vérification de la prescription / DLI par Aphérèse" (ENR-01797).
- results of virological testing less than 30 days prior to the donation;
- "Donor Health History" (ENR-01751) or "Histoire médicale du donneur» (ENR-01799).
- "Donor Medical Examination" (ENR-01768) or "Évaluation médicale du donneur" (ENR-01803).
- "Donor Medical Review" (ENR-01752) or « Révision médicale du donneur» (ENR-01804).

4.8.3 Donor clearance verification

The transplanting physician is responsible for the final decision on whether to proceed with the transplant with this donor. This decision will be based on the donor's evaluation and eligibility documentation provided by Héma-Québec. The TC must sign the applicable verification prescription form in order to confirm that they've read and accepted the donor clearance information completed by the CC.

Note: It is the transplanting physician's responsibility to determine the need for an exceptional distribution and fill out the associated documents, as required by applicable regulations

4.9 Ineligible donor

4.9.1 Donor risk factor

A cancellation of or delay in the stem cell collection may occur if the examination or the results of blood tests prove to be abnormal. In some cases, the medical evaluation may reveal a potential risk for the donor, which requires additional investigation or exclusion.

4.9.2 Recipient risk factor

Before proceeding with a stem cell collection from a donor presenting a risk factor for a recipient, it is the TC's responsibility to:

- evaluate the risks for the recipient;
- fill out section 4 of the form "Donor Medical Review" (ENR-01752) or «Révision médicale du donneur» (ENR-01804) or the equivalent and send it to Héma-Québec.

Note: The decision to continue the process with a donor who poses a potential risk to the recipient (e.g. communicable diseases) is made by the TC based on an evaluation of the possible consequences. The TC must review and confirm in writing that it accepts a donor with these risk factors in order to approve the start of the donation preparation process. It is the TC's responsibility to adhere to the applicable regulations and obtain the recipient's consent.

4.10 Cryopreservation request

To be able to cryopreserve an entire product, the TC must submit to Héma-Québec a request for cryopreservation using form "Stem cell product - Cryopreservation request" (ENR-01704) or "Demande de cryopréservation du produit de cellules souches" (ENR-01703) or its equivalent which must include the following information:

- the recipient's status, which explains the reason for the request;
- the reason for the transplant delay;
- the probability that the product will be transplanted;
- the new expected recipient preparation date.

Upon receiving this request, Héma-Québec contacts the donor to obtain the donor's consent. The TC must obtain approval from Héma-Québec before the expected stem cell collection date.

If the request is approved, the TC must ensure that the product is:

- kept and used solely for the treatment of the recipient in the near future;
- kept and stored in a safe place in optimal conditions;
- destroyed if not used or is no longer viable;
- destroyed as soon as Héma-Québec notifies the TC that:
  - the donor does not consent to storage of the product or withdraws consent.
  - the donor or the registry requests that the product be destroyed.

The TC must inform Héma-Québec of the transplant date or if the product will not be administered to the recipient.

4.11 Postponing collection and resuming preparation for donation

4.11.1 Postponing collection

To postpone a collection date, the registry must advise Héma-Québec in writing of the specific reasons for this delay. The registry must propose a new timeline as soon as additional information and a new transplant date are known.

Héma-Québec notifies the donor and the CC of the change (postponement of collection or scheduling of a new date) and agrees on new dates based on their availability.

Note: The duration of the delay may result in additional evaluation and testing. Additional charges may apply.

4.11.2 Resuming the procedure for preparing for a donation

When the TC is ready to resume the stem cell collection procedure, the registry must notify Héma-Québec of the new transplant date, indicating whether new pre-donation samples are required.

Héma-Québec will take the following steps:

- determine whether the donor must undergo another medical examination;
- conduct a new analysis of infectious disease markers;
- determine whether the donor needs to answer a new medical questionnaire.

Héma-Québec will send the final authorization for donation as well as the results of the new virological analyses to the TC.

Note: Additional charges apply.

4.12 Cancellation of stem cell collection

To cancel a stem cell collection, the registry must send, in writing, the reasons for the cancellation to Héma-Québec. Héma-Québec will then notify the donor and the CC.

4.13 Additional donation

4.13.1 General

Québec donors may make only two stem cell donations in their lifetime (excluding MNC, Apheresis collections), and this includes a stem cell donation for a relative.

At the time of the initial stem cell collection request, the registry must notify Héma-Québec if it anticipates that:

- the donor will be part of a research protocol;
- a second donation will be necessary.

Note: A donor must be fully recovered before being approached for a second donation.

4.13.2 Request for an additional donation

The following forms must be filled out by the TC when requesting an additional donation:

- “Application for Additional Donation” (ENR-01697), “Requête pour don supplémentaire” (ENR-03575) or its equivalent;
- all other documents that were required at the time of the initial application.

If necessary, the TC must answer any questions from the medical review committee in order to approve the request.

Attention: Héma-Québec accepts a maximum of two donations per donor, (a third donation may be accepted for MNC, Apheresis only). It is therefore important to be aware of the consequences that this requirement could have for a recipient if he or she were to require a second transplant or T- lymphocytes (DLI).

5. FRESH PRODUCT TRANSPORTATION

5.1 General

It is the TC’s responsibility to arrange for courier services and to plan and ensure that the stem cells collected for its recipient are transported safely.

The TC must ensure that the policies and procedures for transporting, shipping and receiving the product comply with the applicable standards and regulations and are in keeping with WMDA recommendations.

Note: For all exceptional situations that could lead to major issues while transporting the product, the TC may ask, via their registry, Héma-Québec for assistance in finding an alternative solution. The TC must notify Héma-Québec of any problem that might arise during product collection or transportation.

5.2 Transport documents and itinerary

5.2.1 Documents to be provided to Héma-Québec

The TC must have filled out the following forms and sent them to Héma-Québec before the day of the donor's first G-CSF injection (if applicable) and, at most, four days prior to the courier's departure:

- "Stem Cell Product Transportation Details" (ENR-01701) or "Informations sur le transport de cellules souches" (ENR-01700) or its equivalent, and enclose a copy of the courier's itinerary.

5.2.2 Day of the donation

On the day of the donation, the courier must:

- be at the CC at the time and place agreed upon the day before;
- contact the designated person at the CC;
- have on hand the documents required for transporting the product along with ID (passport, document with photo);
- check with the CC representative that the product is properly identified with the following information: the type of product, product type, number of bags, cell count, anticoagulant added, matches the stem cell prescription;
- package the product and samples accompanying the product according to the TC's instructions;
- verify all documents accompanying the product provided by the CC.

5.2.3 Product packaging

It is the TC's responsibility to provide the courier with the materials necessary for ensuring that the product is transported safely in accordance with the TC's internal policies, with at least the following items:

- a rigid insulated container that is resistant to punctures, leaks, blows and changes in pressure;
- a device that can measure the internal temperature of the container. It should be possible to take the reading outside the container.

The packaging and the container must ensure optimal temperature and conditions over a period long enough to cover any delays that might occur during transport.

The TC must not assume that the CC will provide the materials necessary for transportation. Any request by the CC for materials or devices must be approved and validated by Héma-Québec prior to the courier's departure. The courier must be familiar with the measures to be taken to maintain an adequate temperature.

5.3 Receipt of the product and transplant

The TC must confirm that the product was received in good condition and inform Héma-Québec of the transplant date using form “Product Delivery Record” (ENR-01729) or “Rapport de transport du produit” (ENR-01688) or its equivalent.

If the product is not administered to the recipient as planned, the TC must notify Héma-Québec immediately. The registry that provided the product may require the destruction of the stem cell product.

Note: The TC must immediately report in writing to Héma-Québec any event related to the integrity of the product, including any adverse reaction or event that may be associated with the administration of the product. Please refer to the section “Non-compliance and Reporting of Adverse Reactions.”

6. CORD BLOOD UNIT REQUEST

6.1 Cord blood unit search request

Upon receiving form “Preliminary Search Request” (ENR-01560) or «Demande de recherche» (ENR-01564) or its equivalent, Héma-Québec will send the compatible unit summary from its Héma-Québec Public Cord Blood Bank.

6.2 Request for a detailed cord blood unit report

If the WMDA’s search report reveals a cord blood unit that looks promising, the registry can obtain further details by requesting a report on the unit in question. Cord blood unit reports include basic information such as HLA typing, sex of the baby, cord blood collection date, CD34+ count, total nucleated cell count, viability and the results of the mother’s virological markers.

To obtain information that does not appear in the detailed report, the TC must submit a request in writing to Héma-Québec.

6.3 Request for extended HLA typing and verification typing

The TC may request that HLA typing be conducted by the cord blood bank itself or that the cord blood unit sample be shipped to the TC for typing or other analyses.

To request extended or VT on a cord blood unit, the registry must fill out the cord blood bank form “Cord Blood Unit Request” (ENR-02188) or «Requête - Unité de sang de cordon» (ENR-02115) or its equivalent.

Note: The VT and reservation are available without purchasing the cord blood unit.

6.3.1 Extended typing

The registry may request ET on potentially compatible cord blood units for their patients by providing an ET request. Héma-Québec’s HLA laboratory is ASHI-accredited and will perform all HLA testing requested on Héma-Québec cord blood units.

Note: Extended typing on CBUs are possible only if extracted DNA is available. If not available, the registry will have the option to perform VT.

The request must include the following:

- patient name and ID;
- CBU ID;
- HLA loci to be analysed at high resolution among the following:
  - HLA-A
  - HLA-B
  - HLA-C
  - HLA-DRβ1
  - HLA-DQβ1
  - HLA-DPβ1

6.3.2 Verification typing

The registry may request VT on potentially compatible cord blood units for their patients by providing a VT request. Héma-Québec's HLA laboratory is ASHI-accredited and will perform all HLA testing requested on Héma-Québec cord blood units.

The request must include the following:

- patient name and ID;
- CBU ID.

VT requests include the following:

- HLA high-resolution typing from a segment (segments may not be available for older units):
  - HLA-A
  - HLA-B
  - HLA-C
  - HLA-DRβ1
  - HLA-DQβ1
  - HLA-DPβ1
- Post-Thaw CD34+;
- CFU.

Héma-Québec keeps the CBU requested for VT on reserve for 90 days after the request date. Following this period, the CBU is no longer reserved unless the reservation is extended by the registry.

6.3.3 Sample shipment

Registries may request available samples related to a specific CBU that the TC is interested in pursuing. The registry must then provide shipping details.

6.3.4 Other requests

Registries may request other types of tests or samples. These requests will be reviewed on a case-by-case basis in accordance with applicable regulations and based on feasibility and sample availability.

6.4 Reservation request

To reserve a cord blood unit, the registry must send a request to Héma-Québec specifying the desired reservation period by filling out the form “Cord Blood Unit Request” (ENR-02188) or «Requête - Unité de sang de cordon» (ENR-02115) or its equivalent.

Note: Reservation is for 90 days at a time. An extension of this reservation period may be authorized when the TC specifies the reason for this extension along with a probable transplant date.

6.5 Purchase request

The TC must fill out the purchase form “Cord Blood Unit Request” (ENR-02188) or «Requête - Unité de sang de cordon» (ENR-02115) indicating the selected cord blood unit and specifying the desired delivery date. Héma-Québec will confirm the possible dates and initiate the VT and other viability analyses (if not already performed).

6.6 Cord blood unit transportation

Héma-Québec’s cord blood units are distributed via an approved courier that is required to meet applicable quality standards and regulations.

7. POST-TRANSPLANT

7.1 Post-transplant follow-up

Post-transplant follow-ups are necessary in order for the Héma-Québec registry and Public Cord Blood Banks to be able to validate the effectiveness of their stem cell products, provide the WMDA with the required data, and provide updates to donors (if allowed).

Héma-Québec acts as the liaison between the donor and the requesting registry to coordinate anonymous exchanges between the donor and the recipient or the exchange of their personal information.

Note: Exchange of personal information between CBU donors and recipients are not permitted.

7.2 Recipient health status update

To obtain a recipient health status update (100-day and annual post-transplant follow-ups) or a death notice, Héma-Québec will send a request to the registry to fill out form "Post-Transplant Follow-up" (ENR-02004) or "Suivi post-greffe" (ENR-02005) or its equivalent.

Note: Additional requests by the donor regarding the recipient's health status will be submitted to the registry by Héma-Québec. The registry must ensure that recipients or their families consented in writing to the disclosure of information on their health status to Héma-Québec and to the donor.

8. NON-COMPLIANCE AND REPORTING OF ADVERSE REACTIONS

8.1 General

Héma-Québec defines non-compliance as any deviation from a requirement. This non-compliance must be immediately communicated in writing to Héma-Québec.

For any non-compliance occurring at the TC, they are responsible for reporting the event to Héma-Québec via their registry, conducting a root cause analysis, detecting the problem and implementing corrective measures at its centre.

The TC must inform Héma-Québec of any severe adverse reaction occurring to the recipient that might be associated with the product and notify the applicable regulatory agencies of errors, deficiencies and side effects associated with the transplant, in accordance with the regulations. The form "Serious Event Reporting" (ENR-00114) or "Déclaration d'événement grave" (ENR-00113) or its equivalent, describing a transfusion reaction, must be submitted to Héma-Québec as promptly as possible.

Reports include but are not limited to the following:

- death;
- illness;
- unexpected hospitalization or considerable extension of hospitalization;
- a persistent or major disability;
- thawed cord blood unit;
- leak in the stem cell product.

9. COSTS AND BILLING

The services and testing offered by Héma-Québec are billed based on the fee schedule in effect at the time they were rendered.

The current fee schedule is available on the Héma-Québec (ION-6912) page of the WMDA Share Web site: **https://share.wmda.info/display/WMDAREG/ION-6912**