

# **National Marrow Donor Program<sup>®</sup>**

## **22nd Edition Standards**

### **And Glossary**

**Effective Date: xxxx**

#### **Notice and Disclaimer**

#### **NMDP Standards**

These standards set forth only the basic guidelines for programs working through the NMDP to facilitate hematopoietic cell transplants. These standards do not set forth all that may be required of a facility or individual to conform to NMDP membership requirements, federal or state laws or regulations (or non-U.S. equivalent) or the standard of care prevailing in the relevant community. Each facility and individual must determine and follow any additional laws, regulations, practices and procedures that apply in their particular community. The NMDP disclaims all representations or warranties, expressed or implied, that compliance with the NMDP Standards will fulfill the requirements of all applicable federal or state laws and regulations (or their non-U.S. equivalent) or the standard of care prevailing in the relevant community. The nomenclature throughout these Standards is consistent with ISBT 128 terminology published by ICCBBA, Inc. However, acronyms such as HPC(CB), HPC(A) and HPC(M) are not intended to be used in labeling process or on product labels.

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## **NATIONAL MARROW DONOR PROGRAM® 22<sup>nd</sup> EDITION STANDARDS**

### **1.0000 General**

- 1.1000 These standards apply to activities performed by National Marrow Donor Program® (NMDP) member centers and include processes from donor recruitment to distribution and administration of cellular therapy products facilitated through NMDP.
- 1.1100 Centers shall have adequate resources and space to perform and manage activities.
  - 1.1200 Centers shall establish and maintain written policies and procedures to define activities.
- 1.2000 Participating programs and support laboratories shall comply with all applicable federal and governmental laws and regulations.
- 1.3000 U.S. Centers participating in human subject research must hold a Federalwide Assurance (FWA) with the Office of Human Research Protection (OHRP) (See Resources).
- 1. 3100 Research protocols that include human subjects shall be approved by a designated institutional review board (IRB).
    - 1.3110 Clinical research protocols and the informed consent forms for data and sample collection and submission shall be approved by an institutional review board (IRB) and appropriate regulatory agency, if applicable.
  - 1. 3200 Non-U.S. centers shall provide evidence of compliance with Independent Ethics Committees (IEC) within their country.
- 1.4000 Centers shall use laboratory(ies) certified by Centers for Medicare & Medicaid Services (CMS) (or non-U.S. equivalent) for all clinical tests required by NMDP.
- 1.5000 Participating programs and support laboratories shall comply with these Standards, as well as NMDP policies and procedures.
- 1.5100 Participating programs shall participate in an NMDP or other quality program.
  - 1.5200 Participating programs shall participate in the NMDP Continuous Process Improvement (CPI) program, when applicable.

- 1.5300 Participating programs shall complete their network renewal annually.
- 1.6000 Director of a participating program shall be responsible for compliance with these Standards.
- 1.7000 Center medical director shall be a licensed physician qualified by training and experience to perform and/or supervise defined center activities.
  - 1.7100 Any responsibility(ies) of the center medical director may be fulfilled by a designated center physician.
  - 1.7200 Center medical director is responsible for assuring that physician designees are trained and qualified.
  - 1.7300 Center physicians shall participate regularly in educational activities related to the field of hematopoietic cell collection or transplantation.
- 1.8000 Significant changes in personnel, facilities and/or support services shall be reported promptly to the NMDP in accordance with NMDP Participation Criteria.
- 1.9000 Participating programs shall maintain a system of strict confidentiality of records to protect the privacy of potential donors, donors and patients.
- 1.10000 Staff and volunteer training, continuing education, and continued competency for relevant skills shall be documented.

## **2.0000 Criteria for Participating Donor Centers**

### **2.1000 Facility Characteristics**

- 2.1100 Center shall have experience in the management of blood, apheresis or marrow donors, including education, counseling, confidentiality issues and medical screening.
- 2.1200 Center shall have a private space for donor counseling sessions.
- 2.1300 Center shall have a secure information management system and shall merge data according to NMDP requirements.
- 2.1400 Center shall have written agreement(s) defining roles and responsibilities with participating apheresis and/or marrow collection center(s).

**2.2000      *Medical Director***

- 2.2100      Center shall have a medical director who is a licensed physician qualified by training and experience to evaluate and determine donor medical suitability and supervise donor management.
- 2.2110      The medical director or physician designee shall determine donor medical suitability
- 2.2200      Center medical director shall be responsible for interpretation of NMDP eligibility criteria.

**2.3000      *Personnel***

- 2.3100      Center shall designate a coordinator to work with the NMDP.
- 2.3200      Center shall have staff sufficient to manage daily activities.
- 2.3210      Center shall provide staff for each working day and coverage for emergencies

**2.4000      *Support Services***

- 2.4100      Center shall use the following facilities for NMDP activities:
  - 2.4110      HLA typing laboratory(ies) accredited by the American Society for Histocompatibility and Immunogenetics (ASHI), the European Federation for Immunogenetics (EFI), and/or the College of American Pathologists (CAP) for HLA typing required by NMDP
  - 2.4120      Laboratory(ies) that perform eligibility testing for evidence of infection due to relevant communicable disease agents must use donor screening tests that the Food and Drug Administration (FDA) has approved, licensed or cleared for such use and testing shall be performed in accordance with the manufacturer's instructions. (See Resources)
  - 2.4130      Blood Bank licensed by or registered with the FDA, (or non-U.S. equivalent) for collection of autologous blood

**2.5000      *Policies and Procedures***

- 2.5100      Center shall maintain written procedures and policies for the management of volunteer donors.

### **3.0000      Criteria for Participating Network Centers that Perform Adult Donor Recruitment Activities**

#### **3.1000      *Center Characteristics***

- 3.1100      Center shall have experience in adult donor recruitment activities, including education, confidentiality issues and preliminary donor evaluation.
- 3.1200      Center shall have adequate resources to support its recruitment activities.
- 3.1300      Center shall recruit new donors in accordance with priorities of the NMDP.
- 3.1400      Center shall have a written agreement defining roles and responsibilities with each NMDP donor center that has agreed to accept the recruited HLA-typed donors.
- 3.1500      Center shall recruit donors for inclusion only in the Be The Match Registry<sup>®</sup>.

#### **3.2000      *Medical Director***

- 3.2100      Center shall have access to a donor center medical director for assistance with preliminary donor evaluation.

#### **3.3000      *Personnel***

- 3.3100      Center shall designate a coordinator to work with the NMDP network.
- 3.3200      Center shall have staff sufficient to perform required activities.

#### **3.4000      *Policies and Procedures***

- 3.4100      Center shall maintain written policies and procedures for the recruitment of volunteer donors.

### **4.0000      Criteria for Participating Cord Blood Banks**

#### **4.1000      *Facility Characteristics***

- 4.1100      Bank shall be registered with the FDA.
- 4.1200      Bank shall have experience in cord blood recruitment.
- 4.1300      Bank shall have adequate and secure facilities for manufacturing HPC(CB).
- 4.1400      Bank shall have written agreements to collect cord blood.
- 4.1500      Bank shall maintain accreditation by AABB and/or Foundation for Accreditation for Cellular Therapy: NetCord-FACT. (See Resources)

**4.2000        *Medical Director***

- 4.2100        Bank shall have a medical director who is a licensed physician.
- 4.2200        Bank medical director shall have postdoctoral training in hematopoietic cell transplantation, blood or tissue banking, basic or clinical immunology, immunohematology or cryobiology.
- 4.2300        Bank medical director shall be responsible for review of the medical evaluation of the donor and biologic mother for evidence of disease transmissible by transplantation.
- 4.2400        Bank medical director shall be responsible for: recruitment, informed consent, evaluation and follow-up of the potential donor, and participate in the development of the procedures for the collection, processing, testing, banking, selection and release of the unit.

**4.3000        *Personnel***

- 4.3100        Bank shall designate a coordinator to work with the NMDP.
- 4.3200        Bank shall have staff sufficient to manage daily activities.
- 4.3210        Bank shall have adequate trained and competent personnel available to perform tasks related to HPC(CB) manufacturing and sample management.
- 4.3220        Bank should have a designated, independent Quality Unit to audit, monitor, and authorize release of cord blood units as defined in facility-specific procedures.

**4.4000        *Support Services***

- 4.4100        Bank shall use the following facilities for NMDP activities:
  - 4.4110        HLA-typing laboratory(ies) accredited by the American Society for Histocompatibility and Immunogenetics (ASHI), the European Federation for Immunogenetics (EFI), and/or the College of American Pathologists (CAP) for HLA typing required by NMDP.
  - 4.4120        Laboratory(ies) that perform eligibility testing for evidence of infection due to relevant communicable disease agents must use donor screening tests that the FDA has approved, licensed or cleared for such use and testing shall be performed in accordance with the manufacturer's instructions. (See Resources)



- 4.4130 Cord blood collection sites accredited by an organization granted deemed status by Centers for Medicare & Medicaid Services (CMS) or non-U.S. equivalent.

**4.5000** *Policies and Procedures*

- 4.5100 Bank shall have written procedures for the qualification of cord blood collection facilities and personnel.
- 4.5200 Bank shall have written procedures for recruitment, donor selection, obtaining maternal health and family history, infectious disease marker testing, and for HPC, Cord Blood [HPC(CB)] collection, processing, labeling, storage and transportation.
- 4.5300 Bank shall have written policies and procedures for the release and issue of HPC(CB) units and for the return to inventory of unused cryopreserved units.

**5.0000** **Criteria for Participating Marrow Collection Centers**

**5.1000** *Facility Characteristics*

- 5.1100 Center shall be accredited by an organization granted deemed status by Centers for Medicare & Medicaid Services (CMS) or non-US equivalent.
- 5.1200 Center shall have an experienced team that has collected HPC, Marrow [HPC(M)] at least three times in the past three years at the center.
- 5.1300 Center shall have written agreement(s) defining roles and responsibilities with participating donor center(s).

**5.2000** *Medical Director*

- 5.2100 Center shall have a medical director who is a licensed physician qualified by training and experience to supervise HPC, Marrow collections.
- 5.2110 Center medical director shall have postdoctoral training in hematopoietic cell collection or transplantation
- 5.2120 Center medical director shall have at least one year experience in the collection procedure
- 5.2200 Center medical director shall be responsible for reviewing the medical evaluation of the donor for risks of donation and evidence of disease transmissible by transplantation.

**5.3000      *Personnel***

- 5.3100      Center physician performing the HPC, Marrow [HPC(M)] collection shall have performed at least 10 prior collections of HPC(M) for transplantation with at least three collections in the previous three years. Any person assisting in the marrow aspiration (physician, nurse, technician) shall have documented adequate training in HPC(M) collections for transplantation.
- 5.3200      Center shall provide daily and emergency coverage by designated coordinator(s), sufficient in number to meet the needs of the center's activities.
- 5.3300      Center shall provide anesthesia under supervision of a licensed, board-certified anesthesiologist.
- 5.3400      Physician responsible for the HPC(M) collection shall have documented operating room privileges at the collection center.

**5.4000      *Support Services***

- 5.4100      Center shall have a surgical operating room and a medical intensive care unit.
- 5.4200      Center shall have capability to perform NMDP HPC, Marrow collections in a timely fashion.
- 5.4300      Center shall have irradiated and leukoreduced blood components available in the event that the use of allogeneic blood cannot be avoided.

**5.5000      *Policies and Procedures***

- 5.5100      Center shall maintain written procedures for the collection, testing and labeling of HPC, Marrow [HPC(M)].
- 5.5200      Center medical director or the physician performing the collection shall perform and/or review a complete medical evaluation of the donor to determine if the donor is an acceptable candidate for HPC(M) collection.
- 5.5300      Center shall verify that the donor has autologous red cell units available prior to the HPC(M) collection appropriate to the anticipated volume of HPC(M) to be collected.
  - 5.5310      Use of allogeneic blood shall be avoided unless deemed medically necessary by the collection physician.
- 5.5400      Physician responsible for the collection shall be present for the duration of the HPC(M) collection.
- 5.5500      Donor shall be admitted and discharged from the collection center the same day unless the medical status precludes it.

5.5510 Physician shall be responsible for determining that the donor's health is appropriate for discharge.

5.5600 At time of discharge, the center shall provide to the donor post-donation care instructions with contact names and phone numbers.

## **Criteria for Participating Apheresis Collection Centers**

### **6.1000 Facility Characteristics**

6.1100 Center shall be registered with the FDA.

6.1200 Center shall have experience in the collection of cellular components by apheresis, and shall have performed at least three collections of mononuclear cells by apheresis in the past year.

6.1300 Center shall have written agreement(s) defining roles and responsibilities with participating donor center(s).

### **6.2000 Medical Director**

6.2100 Center shall have a medical director who is a licensed physician qualified by training and experience to supervise mononuclear cell collections:

6.2110 Center medical director shall have at least one year experience in the collection procedure.

6.2200 Center medical director shall take responsibility for assuring that other center physicians supervising apheresis collections are trained in the procedure.

6.2300 Center medical director shall be responsible for reviewing the medical evaluation of the donor for risks of donation and evidence of disease transmissible by transfusion or transplantation.

### **6.3000 Personnel**

6.3100 Center shall designate a coordinator to work with the NMDP.

6.3200 Center shall have apheresis collection staff experienced in the collection of mononuclear cells and in the management of apheresis donors including those with central venous catheters.

6.3300 Administration of mobilization agents shall be under the supervision of a licensed physician experienced in their administration and in the management of complications in persons receiving these agents.

6.3400 A licensed physician qualified by training and experience, shall place any central venous catheters.

#### **6.4000**      *Support Services*

- 6.4100      Center shall use a laboratory with documented proficiency for measuring the quantity of CD34-positive cells in the component collected.
- 6.4200      Center shall have appropriate apheresis equipment, supplies and pharmaceuticals.
- 6.4300      Center shall use a hospital accredited by an organization granted deemed status by Centers for Medicare & Medicaid Services (CMS) or non-U.S. equivalent for placement of central venous catheters.

#### **6.5000**      *Policies and Procedures*

- 6.5100      Center shall maintain written procedures and policies for donor evaluation, mobilizing agent administration, and management of adverse events, and for the collection, testing, storage, labeling, and transport of hematopoietic cells and for the maintenance of apheresis equipment.
- 6.5200      Center shall have a process for treating donor adverse events and providing for emergency medical care.
- 6.5300      Center shall maintain written procedures to prevent or minimize adverse effects of citrate administration during apheresis.
- 6.5400      Center shall have a written policy on peripheral venous access assessment and placement of central venous catheters.
  - 6.5410      Central venous catheters shall only be used when peripheral venous access is not deemed feasible after skilled assessment or cannot be obtained or has failed.
  - 6.5420      Placement of central venous catheters shall require a written justification.
  - 6.5430      Adequacy of line placement shall be verified prior to use.

### **7.0000**      **Criteria for Participating Transplant Centers**

#### **7.1000**      *Facility Characteristics*

- 7.1100      Center shall be accredited by an organization granted deemed status by Centers for Medicare & Medicaid Services (CMS) or non-U.S. equivalent.
- 7.1200      Center shall have an experienced team that has performed allogeneic transplants for at least 10 different patients per year.

- 7.1210 Centers performing pediatric transplants shall have a transplant team trained in the management of pediatric patients.
- 7.1300 Center shall have a designated inpatient unit that minimizes the risk of infection.
- 7.1400 Center shall have a designated area for outpatient evaluation and treatment that reduces the risk of transmission of infectious agents and is available 24 hours per day, seven days per week.
- 7.1500 Center with more than one patient care unit shall be considered a single transplant center if the patient care units demonstrate functional unity.
- 7.1510 If the patient care units are located in more than one institution, at least one of the institutions shall satisfy all transplant center participation criteria. Patient care units at the other institutions shall have performed allogeneic transplants for at least five different patients per year

**7.2000 Medical Director**

- 7.2100 Center shall have a medical director who is a licensed physician.
  - 7.2110 Center medical director shall be board certified (or non-U.S. equivalent) in one or more of the following specialties: Hematology, Immunology, Medical Oncology or Pediatric Hematology/Oncology.
    - 7.2111 Non-board certified physicians who completed medical training prior to 1985 may serve as medical directors if they have documented experience in the field of hematopoietic cell transplantation extending over ten years.
  - 7.2120 Center medical director shall have had at least two years experience as an attending physician responsible for clinical management of allogeneic transplant recipients in the inpatient and outpatient settings.
- 7.2200 Transplant center medical director shall be responsible for search management activities and protecting the safety of the recipient.
- 7.2300 Medical director shall have at least two attending physicians who are licensed and qualified by training and experience in allogeneic hematopoietic cell transplantation.
  - 7.2310 Adequate clinical training in allogeneic hematopoietic cell transplant shall be defined as a minimum of one year experience in

the management of transplant recipients in both the inpatient and outpatient settings.

7.2320 Attending physicians should be board certified or eligible as specified in 7.2110.

### **7.3000      *Personnel***

- 7.3100 Center shall provide daily and emergency coverage by designated transplant coordinator(s), sufficient in number to meet the needs of the center's activities.
- 7.3200 Center shall have nurses qualified by training and experience in the care of transplant recipients, sufficient in number to meet patient needs.
- 7.3300 Center shall have sufficient data management personnel to comply with NMDP and Center for International Blood and Marrow Transplant Research (CIBMTR) data submission requirements. (See Resources)
- 7.3400 Center shall identify a patient advocate who is familiar with the center's program and issues of unrelated donor hematopoietic cell transplantation.

### **7.4000      *Support Services***

- 7.4100 Center shall use HLA typing laboratory(ies) accredited by the American Society for Histocompatibility and Immunogenetics (ASHI), the European Federation for Immunogenetics (EFI), and/or the College of American Pathologists (CAP) for HLA typing required by NMDP. The laboratory designated by the transplant center is responsible for the final HLA typing of the patient and donor.
- 7.4200 Center shall have access to a person qualified by training and experience in human histocompatibility testing to assist in the selection of unrelated hematopoietic cells or donors.
- 7.4300 Center shall use a transfusion service providing 24-hour blood component support for transplant patients, including irradiated blood components and components suitable for CMV-negative recipients.
- 7.4400 Center shall use an experienced hematopoietic cell processing laboratory.
- 7.4500 Center shall have experienced physicians who provide consultative services in at least the following disciplines: Cardiology, Gastroenterology, Infectious Diseases, Intensive Care, Nephrology, Pathology, Pulmonary Medicine, Psychiatry, Surgery, Transfusion Medicine, and, if applicable, Radiation Therapy.
- 7.4600 Center shall have sufficient staff from at least the following services: Dentistry, Dietary, Pharmacy, Physical Therapy, and Social Services.

**7.5000        *Policies and Procedures***

- 7.5100        Center shall maintain written policies, procedures and clinical practice guidelines to address all aspects of allogeneic transplantation.
- 7.5200        Each recipient of hematopoietic cells from an NMDP donor shall be enrolled in a clinical research protocol or treated according to a written clinical practice guideline.
- 7.5300        Center shall have a mechanism to obtain written consent from the recipient for submission of data to NMDP and Center for International Blood and Marrow Transplant Research (CIBMTR) and blood samples to the NMDP prior to use of hematopoietic cells from an NMDP donor.
- 7.5400        Center shall have policies to ensure timely communication with patients, families and physicians, including the progress of the search and other treatment options.

**8.0000        *Recruitment of Hematopoietic Cell Adult and Cord Blood Donors***

**8.1000        *Marrow or Apheresis Donor***

- 8.1100        Donor shall be between the ages of 18 and 60.
- 8.1200        Donor shall appear to be in good health.
- 8.1300        Donor shall provide a medical history and shall document that the history is accurate.
- 8.1400        Pertinent donor medical history shall be evaluated for acceptance or deferral according to the current NMDP procedures and criteria of local donor center medical director.
- 8.1500        Donor shall be given educational materials regarding the risks of infectious disease transmission by hematopoietic cell transplants.
- 8.1600        Donor shall provide informed consent.
  - 8.1610        Donor shall be given a general explanation of the indications for and results of hematopoietic cell transplantation and reasons for using unrelated donors.
  - 8.1620        Donor shall be given a general description of the different types of donation processes and the risks of hematopoietic cell donation associated with each.
  - 8.1630        Donor shall be informed that additional HLA testing may be performed on stored samples.

- 8.1640 Donor shall acknowledge and document that he/she has read and understood the educational material, has been given ample opportunity to ask questions and has had those questions answered satisfactorily.
- 8.1650 Donor shall be informed that he/she has the right to decline or withdraw from NMDP participation at any time without prejudice.
- 8.1700 Donor shall not be coerced to register with NMDP.
- 8.1800 Donor's sample shall be HLA typed using criteria established by NMDP.

## **8.2000      *Cord Blood Recruitment***

- 8.2100 Consent shall be obtained from the biologic mother for collection and voluntary donation of the HPC, Cord Blood [HPC(CB)] to a cord blood bank for use in unrelated cellular therapies per cord blood bank specific policies.
  - 8.2110 Consent for collection shall be obtained before delivery.
  - 8.2120 Biologic mother shall be given a general explanation of the indications for and results of cellular therapies and reasons for using unrelated donors
  - 8.2130 Biologic mother shall be given a general description of the donation process and the risks of cord blood donation
  - 8.2140 Biologic mother shall acknowledge and document that she has read and understood the elements of participation, has been given ample opportunity to ask questions, and has had those questions answered satisfactorily
- 8.2200 Biologic mother shall not be coerced to donate cord blood.

## **9.0000      *Donation Process***

### **9.1000      *Adult Donor Additional Testing/Information***

- 9.1100 Donor shall provide signed consent for additional testing according to NMDP policy.
- 9.1200 Customized HLA Typing
  - 9.1210 If a stored sample is used for customized HLA typing, the potential donor shall be informed that the typing is in progress and shall be given the opportunity to continue or withdraw.



- 9.1220 Donor center shall obtain from the donor a medical history that meets NMDP requirements for a marrow or apheresis donor.
- 9.1221 Donor center shall keep a written record of the medical history.
- 9.1222 Medical history indicative of disease shall be evaluated by a physician before acceptance of the donor.
- 9.1300 Confirmatory Testing Stage
- 9.1310 Donor center shall provide potential donor with educational materials including the risks of infectious disease transmission by transplantation.
- 9.1220 Donor shall provide signed consent for additional testing.
- 9.1330 Donor center shall obtain from the donor a medical history that meets NMDP requirements for a marrow or apheresis donor.
- 9.1331 Donor center shall keep a written record of the medical history.
- 9.1332 Medical history indicative of disease shall be evaluated by a physician before acceptance of the donor.
- 9.1340 The donor center shall perform and/or review the results of the screening tests for evidence of infection due to the relevant communicable diseases as defined by NMDP.
- 9.1350 ABO grouping and Rh typing of the potential donor shall be performed if the donor has not been previously typed by the donor center.
- 9.1360 Results of the ABO grouping, Rh typing and infectious disease testing shall be reported to the transplant center that requested the confirmatory testing sample.
- 9.1361 Donors with a confirmed positive test for relevant communicable disease agents (e.g. HBsAg or HCV) shall not be used unless urgent medical need is documented.
- 9.1362 Donors with a confirmed positive test for HIV shall not be used.
- 9.1370 Transplant Center shall verify the HLA typing of the donor, in accordance with NMDP policy, using a new sample

9.1380 Results of the confirmatory HLA typing shall be sent to the NMDP

**9.2000      *Adult Donor Information Session***

9.2100 Information as required by the NMDP shall be provided to the selected potential marrow or apheresis donor before consent is obtained.

9.2200 Prospective marrow or apheresis donor shall be informed of at least the following:

9.2210 The donation process and associated risks to the donor.

9.2220 The transplant process for the recipient.

9.2230 Right to withdraw at anytime, but extreme risk of death for the recipient if the donation is not completed once the preparative regimen is begun.

9.2240 Possibility that he/she may be asked to provide other cellular therapy products for the same recipient.

9.2300 Prospective marrow donor shall be informed about the procedure of HPC, Marrow [HPC(M)] donation and the following risks of HPC(M) donation:

9.2310 Risks of anesthesia

9.2320 Risks and discomforts of HPC(M) donation including mechanical injury, prolonged pain, infection, transfusion and mental/emotional stress

9.2400 Prospective apheresis donor shall be given detailed information about the apheresis procedure and the following risks of the procedure.

9.2410 Risks and side effects of mobilizing agent (if applicable).

9.2420 Possibility of central venous catheter placement, along with its risks and discomforts.

9.2430 Risks and discomforts of the apheresis procedure.

**9.3000      *Medical Evaluation of the Prospective Marrow or Mobilized Apheresis Donor***

9.3100 Donor center shall provide prospective donor with educational materials regarding the risks of infectious disease transmission by transplantation.

9.3200 Medical history

- 9.3210 Donor center shall obtain from the donor a medical history that meets NMDP requirements.
- 9.3220 Medical history indicative of disease or risk of infectious disease shall be evaluated by a donor center medical director or designee to determine the donor's suitability to donate and eligibility status.
- 9.3300 Medical examination
  - 9.3310 Examining practitioner is responsible for protecting the safety of the donor and for delineating conditions in the donor that may be transmissible by transfusion or transplantation.
  - 9.3320 Examining practitioner shall be designated by medical director of donor, collection, or apheresis center.
  - 9.3330 Examining practitioner shall not be part of the transplant team of the center performing the transplant.
  - 9.3340 Examining practitioner shall perform and/or evaluate a complete medical history and physical examination to include special notation of the following:
    - 9.3341 Pregnancy assessment
    - 9.3342 Deferral from blood donation
    - 9.3343 Contraindications to HPC, Marrow [HPC(M)] or HPC, Apheresis [HPC(A)] donation
    - 9.3344 Findings that would increase the anesthesia risk for the prospective donor
  - 9.3350 Examining practitioner shall obtain and evaluate at a minimum the results of the following tests:
    - 9.3351 Chest X-ray
    - 9.3352 Electrocardiogram
    - 9.3353 Urinalysis
    - 9.3354 Complete blood count
    - 9.3355 Electrolytes, glucose
    - 9.3356 Blood urea nitrogen and creatinine

- 9.3357      Serum protein plus albumin or serum protein electrophoresis
- 9.3358      Screening for Hemoglobin S
- 9.3360      Examining practitioner shall report results of the medical evaluation in writing to the donor center.
- 9.3370      Final approval of the donor shall not occur until the medical director/physician designee of the collection center or apheresis center and the donor center medical director or designee document that the donor meets the criteria for collection and the donor has signed the consent to donate.
- 9.3371      Donor center shall notify the NMDP Case Manager that the donor is medically suitable and has signed the consent to donate.
- 9.3380      Donor center shall ensure repeat infectious disease testing is performed if previous results were obtained more than 30 days prior to marrow or mobilized apheresis donation (Standard 2.4130 applies).

**9.4000      *Prospective Adult Donors with Abnormal Findings***

- 9.4100      Donor center medical director or designee shall report to the donor any clinically significant abnormal findings discovered during donor evaluation.
  - 9.4110      Donor shall be notified of the findings and documentation maintained.
  - 9.4120      Donor has the right to decline donation based on the abnormal findings and keep the reason(s) confidential.
- 9.4200      Clinically significant abnormal finding that may increase risk to the donor
  - 9.4210      Donor center medical director and collection center medical director (or examining practitioner) shall determine whether any finding constitutes unacceptable risk to the donor.
  - 9.4220      If the donor agrees to donate, any clinically significant finding that may increase risk in the prospective donor shall be reported by the donor center to the NMDP.
- 9.4300      Abnormal finding that may increase risk to the recipient
  - 9.4310      Transplant center medical director shall determine whether hematopoietic cells from a donor with an abnormal finding pose unacceptable risk to the recipient

- 9.4320 Decision to use hematopoietic cells from a donor with an abnormal finding that may increase risk to the recipient shall be communicated by the transplant center, in writing, to the NMDP
- 9.4330 Abnormal finding that may increase recipient risk shall be reported to the recipient or recipient's representative, who shall be counseled as to the potential impact of the abnormality
- 9.4331 Documentation of counseling shall be maintained at the transplant center

**9.5000      *Pre-Collection Communication***

9.5100      HPC, Marrow or HPC, Apheresis Donation

- 9.5110 Transplant center shall provide signed acknowledgment to the NMDP that the donor's ABO group and Rh type, degree of HLA match, and test results are acceptable
- 9.5120 Initiation of the recipient's preparative regimen shall not occur until the donor has received final approval and infectious disease testing, performed within 30 days of HPC, Marrow [HPC(M)] or HPC, Apheresis [HPC(A)] donation, and has been reported to the NMDP

9.5200      HPC, Marrow Donation

- 9.5210 Donor center, collection center, and transplant center shall agree in writing on the volume and nucleated cell count of HPC, Marrow to be collected before start of preparative regimen
- 9.5220 Transplant center and collection center shall agree on the medium, anticoagulant and additives used for collection and transport of HPC(M)
- 9.5230 Number of nucleated cells to be used for quality assurance and research shall be included and identified separately on the marrow request form
- 9.5240 Donor center and collection center shall agree on the volume of autologous blood to be collected by the donor center

9.5300      HPC, Apheresis & TC, Apheresis Donation

- 9.5310 For HPC, Apheresis, donor center, apheresis center and transplant center shall agree in writing on the following before the start of the recipient's preparative regimen:

9.5311 Volume of whole blood to be processed or total CD34 to be collected

9.5312 Number of apheresis procedures to be performed

9.5320 For TC, Apheresis, donor center, apheresis center and transplant center shall agree in writing on the volume of blood to be processed.

**9.6000      *Pre-Collection Adult Donor Blood Samples***

9.6100 Pre-collection donor blood samples in excess of those required for autologous units and samples needed to assess the physical well being of the donor should be:

9.6110 Limited to a maximum volume defined in current NMDP guidelines

9.6120 Obtained more than 10 days prior to HPC, Marrow collection

**9.7000      *Subsequent Adult Donor Contacts***

9.7100 Following the donation, donor center shall evaluate the well-being of the donor in the following manner:

9.7110 Telephone call or direct conversation with the donor shall be made within 48 hours of the donation

9.7120 Contact with the donor shall be repeated between five and seven days after donation

9.7130 If the donor has any unusual clinical complaints, donor shall be referred to an appropriate source of medical care

9.7140 Contacts with donor shall continue until the donor is free of clinical complaints related to the collection

9.7200 Subsequent Donations

9.7210 The maximum number of donations from a given donor is limited according to NMDP policy.

9.7220 Donor may be asked to provide an additional cellular therapy product collection for the same recipient following NMDP guidelines

9.7221 Donor suitability and eligibility determination requirements apply for each donation occurrence

- 9.7222 Donor should not provide more than two subsequent donations for a given recipient, of which only one may be an HPC, Apheresis or HPC, Marrow donation
- 9.7230 Donor should not be asked to donate HPC for a second recipient unless no other equally compatible donor is available and the following conditions are met:
  - 9.7231 At least one year has elapsed since the first HPC, Marrow or HPC, Apheresis donation for the first recipient
  - 9.7232 At least three years have elapsed since a subsequent HPC, Marrow or HPC, Apheresis donation
  - 9.7233 No donor shall provide more than two HPC, Marrow donations
  - 9.7234 Donation of HPC to a third recipient is not permitted
- 9.7240 Donor has the right to refuse consent for any subsequent request
- 9.7300 Donor/Recipient Direct Contact
  - 9.7310 If the donor registry or transplant program allows direct contact between donor and recipient, contact is allowed only after both donor and recipient or recipient's representative have signed a consent authorizing release of personal information
  - 9.7311 Direct contact shall not occur until after the first anniversary of the transplant

## **9.8000 Cord Blood Donation**

- 9.8100 Consent shall be obtained from the biologic mother for testing and storage of the HPC, Cord Blood [HPC(CB)] to a cord blood bank for use in unrelated cellular therapies per cord blood bank specific policies.
- 9.8200 Bank shall document from the biologic mother, a family medical history to identify genetic disorders and a personal medical history to identify infections or risk behaviors for infections that are transmissible by transplantation.
  - 9.8210 Medical history shall reflect the biologic mother's health status at the time of delivery
  - 9.8220 Bank shall define criteria used to assess the infant donor for infection or other abnormalities that may potentially affect the

safety of the recipient or the therapeutic value of the cellular therapy product

- 9.8300 Bank shall test a blood sample from the biologic mother of cord blood donor for infectious diseases as defined by NMDP.
- 9.8310 Blood sample from biologic mother of cord blood donor used for infectious disease testing shall be obtained within 7 days prior to or within 7 days after collection. (Standard 1.4000 applies)
- 9.8320 Bank shall inform, counsel and document counseling of biologic mother regarding any clinically significant abnormal findings.
- 9.8400 Medical director or designee shall evaluate medical history and testing results, and document the review prior to listing the HPC(CB) unit with the NMDP.

## **10.0000 Hematopoietic Cell Collection, Storage, Transportation, Processing and Labeling**

### ***10.1000 HPC, Marrow [HPC(M)] Collection***

- 10.1100 Collection shall be performed only after it has been determined that the intended recipient is suitable for immediate transplant.
- 10.1110 Collection shall not be requested for transplantation at an undetermined future date
- 10.1200 Collection shall be performed with a needle designed specifically for HPC(M) collection.
- 10.1300 HPC(M) shall be taken from the posterior aspect of the iliac crest.
- 10.1400 Collected marrow volume shall not exceed 20 ml/kg donor body weight.
- 10.1500 HPC(M) shall be harvested with only the types and amounts of anticoagulants, media and additives agreed on by transplant and collection centers.
- 10.1600 HPC(M) should contain the number of nucleated cells agreed upon by the transplant center, donor center, and collection center.
- 10.1610 Collection center shall count the nucleated cells collected
- 10.1700 HPC(M) shall be filtered during collection using sterile filters made of materials that do not deplete leukocytes.
- 10.1800 HPC(M) shall be divided into approximately equal portions and packaged in at least two sterile, closed, labeled blood bags appropriate for HPC(M) collection, each with ports that can be entered aseptically.



**10.2000      *HPC, Apheresis [HPC(A)] & TC, Apheresis [TC(A)] Collection***

- 10.2100      HPC, Apheresis [HPC(A)] collection
  - 10.2110      Hematopoietic mobilizing agent shall be given to donors only when approved by the NMDP
  - 10.2120      Apheresis shall be performed only after it is determined that the intended recipient is suitable for immediate transplantation
    - 10.2121      Apheresis shall not be requested for transplantation at an undetermined future date
  - 10.2130      For central venous access see Section 6.5400
- 10.2200      Collection shall be performed using an instrument and software designed for mononuclear cell collection.
- 10.2300      Collection shall be performed using ACD-A anticoagulant in a ratio sufficient to prevent extracorporeal clotting.
- 10.2400      Total volume of blood processed per collection shall be set by NMDP protocols and procedures.
- 10.2500      Target parameters shall be specified in writing.
  - 10.2510      Apheresis center shall obtain component cell counts, including CD34 counts for HPC(A), and promptly transmit results to NMDP and, if requested, to the transplant center
- 10.2600      After collection, the apheresis center shall not cryopreserve product or manipulate the product without the direct consent of the transplant center and approval of the NMDP.
  - 10.2610      Any further processing shall only be performed by transplant center or laboratory designated by the transplant center
- 10.2700      Cells shall be suspended in sufficient donor plasma to maintain viability of the cells during transport
- 10.2800      Cells shall be aseptically collected in a sterile, labeled container with a port that can be entered aseptically

**10.3000      *HPC, Cord Blood [ HPC(CB)] Collection and Processing***

- 10.3100      Testing, collection and processing of the HPC(CB) units shall be consistent with AABB Standards and/or NetCord-FACT Standards. (See Resources)

- 10.3200 HPC(CB) units shall be stored with at least two integrally attached cryopreserved product samples available for additional testing.
- 10.3300 Collection and processing must be performed using validated methods.

**10.4000 Marrow or Apheresis Processing**

- 10.4100 Collection center and/or apheresis centers shall not add anything, process or cryopreserve product except as requested by the transplant center and approved by the NMDP.
- 10.4200 Transplant center shall perform the following testing:
  - 10.4210 Count the number of nucleated cells in the product
  - 10.4220 Confirm ABO grouping and Rh typing of marrow or apheresis product or blood obtained from the donor at the time of collection
  - 10.4230 Fungal and bacterial cultures
  - 10.4240 CD34-positive cell quantitation of HPC, Apheresis products

**10.5000 Labeling and Documentation (HPC, Marrow; HPC, Apheresis; TC, Apheresis; HPC, Cord Blood; Cryopreserved HPC, Cord Blood)**

- 10.5100 Labeling shall conform to applicable regulations and labeling information in the Circular of Information (COI) or package insert for licensed products and shall be consistent with AABB, FACT-JACIE and/or NetCord-FACT Standards, as applicable. (See Resources)
  - 10.5110 Center shall complete the product-specific, NMDP-supplied label and tie-tag, and affix or attach to each bag, as applicable for “HPC, Marrow”, “HPC, Apheresis” and “TC, Apheresis” products.
- 10.5200 Biohazard and Warning Labels, as required by the US Food and Drug Administration, shall conform with labeling as outlined in 10.5100. (See Resources)
- 10.5300 Documents accompanying the product shall conform to applicable regulations and labeling information in the Circular of Information (COI) or package insert for licensed products and shall be consistent with AABB, FACT-JACIE and/or NetCord-FACT Standards, as applicable. (See Resources)
- 10.5400 Each item recorded on the label and accompanying documents shall be verified for accuracy by two individuals or by one individual and a validated electronic equivalent and verification documented.

**10.6000      *Transportation***

- 10.6100      Each non-cryopreserved product shall be placed inside a secondary container which is sealed to prevent leakage. (e.g. an outer bag)
- 10.6200      Products shall be enclosed in a rigid shipping container with temperature insulating properties.
- 10.6210      The rigid shipping container shall include a document on the inside of the container and a label on the outside of the container according to NMDP policies and procedures.
- 10.6300      Non-cryopreserved products shall be transported at the temperature specified by the transplant center or NMDP.
- 10.6310      Product shall be insulated from direct contact with wet ice or reusable cooling packs
- 10.6320      Dry ice shall not be used
- 10.6400      Cryopreserved products shall be shipped in a liquid nitrogen “dry shipper” properly charged to maintain temperature of -150°C or colder at least 48 hours beyond the expected arrival time at the receiving facility.
- 10.6410      The temperature of the shipping container during shipment shall be continuously monitored
- 10.6500      All non-cryopreserved HPC, Apheresis and HPC, Marrow shall be hand carried by a suitably trained courier in the passenger compartment of the transport vehicle.
- 10.6600      Transported cellular therapy products should not be passed through X-ray or other irradiation devices.

**10.7000      *HPC, Marrow; HPC, Apheresis; TC, Apheresis; and HPC, Cord Blood Infusion***

- 10.7100      HPC, Marrow; HPC, Apheresis; and TC, Apheresis products shall be infused as soon as feasible. HPC(M) and HPC(A) products should be infused within 48 hours of collection.
- 10.7200      HPC, Cord Blood units shall be infused as soon as possible after thawing and preparing the product for administration per manufacturer’s instructions or validated local procedure(s).

## **11.0000      Adverse Events, Deviations, Complaints and Nonconforming Products, Materials or Services**

### ***11.1000      Adverse Events***

- 11.1100      Participating Center shall have processes and procedures for capturing, evaluating, documenting and reporting suspected donor or recipient adverse events.
  - 11.1110      Center shall document and investigate adverse events associated with the use of a mobilizing agent and/or the collection or administration of a cellular therapy product
  - 11.1120      Center shall notify NMDP of serious adverse events possibly related to the product as defined in NMDP protocols and procedures
  - 11.1130      Fatal or potentially life threatening adverse events possibly related to the product shall be reported to NMDP by close of the next business day following determination of the event
  - 11.1140      Center shall maintain a record of adverse events and follow-up

### ***11.2000      Deviations***

- 11.2100      Participating Center shall have processes and procedures for capturing, documenting, investigating and reporting deviations from established procedures, NMDP Standards, NMDP protocols, facility-defined acceptance criteria or applicable laws and regulations.
  - 11.2110      Center shall have process to document and obtain pre-approval for planned deviations.
    - 11.2111      Centers shall obtain NMDP pre-approval for planned deviations from NMDP-defined protocols
  - 11.2120      Center shall have a process to evaluate unplanned deviations to assess the need to determine the cause of the event and document the corrective and preventative actions, when applicable.
    - 11.2121      Centers shall report unplanned deviations from NMDP-defined protocols per NMDP-defined processes.
  - 11.2130      To facilitate follow-up, center shall report to NMDP as soon as possible the deviations that affect the safety, purity, potency or

identity of the product or the safety or identity of the donor or recipient.

11.2131      Deviations involving transport that potentially affect the integrity of the product or delay the availability of product for a patient shall be reported promptly to facilitate immediate corrective action

11.2140      Center shall maintain a record of deviations and follow-up.

11.2150      Requests for variances from these Standards shall be submitted in accordance with NMDP policies and procedures.

**11.3000      *Complaints***

11.3100      Participating Center shall have processes and procedures for capturing, evaluating, documenting and follow-up of reported complaints relative to products or services provided by Center.

**11.4000      *Nonconforming Product/Materials/Service***

11.4100      Participating Center shall have processes and procedures to prevent the release or unintended use of nonconforming products, supplies/materials or services.

11.4110      Center shall have processes to identify, document, control and prevent release/ use of nonconforming products, supplies /materials or services pending evaluation.

11.4111      NMDP shall be notified as soon as possible of nonconforming products, supplies/materials or services that impact NMDP donors, products or recipients to facilitate timely follow-up.

11.4120      Center shall have process to assess safety, quality, identity, purity and/ or potency, as applicable, of nonconforming products, supplies/ materials or services.

11.4130      Center shall have a process for documented evaluation and disposition of affected nonconforming products, supplies/ materials or services.

11.4131      Authority for determining disposition of nonconforming products, supplies/ materials or services shall be documented

11.4132      The facility of final distribution shall have policies and procedures to address cellular

therapy products with positive microbial culture, including:

- 1) Product labeling
- 2) Investigation of cause
- 3) Notification of recipient physician
- 4) Recipient follow-up and outcome analysis
- 5) Reporting to regulatory agencies, as applicable

11.4140 NMDP shall be notified as soon as possible when released products or services applicable to NMDP business are determined to be unsuitable to facilitate timely follow-up and consignee notification and reporting.

### **11.5000 General Reporting Requirements**

11.5100 Center shall have processes that support the reporting of adverse reactions, deviations and nonconforming products, supplies/materials or services to affected parties and regulatory agencies in accordance with applicable laws and regulations.

## **12.0000 Records and Record Retention**

### **12.1000 General Record Requirements for All Participating Centers**

12.1100 Center shall have secure record storage.

12.1200 Records shall be created concurrently with the performance of each critical activity. The work performed, the individual performing the work, and when it was performed shall be identified.

12.1300 Records shall be legible, indelible, complete and retrievable in a reasonable period of time.

12.1400 Records shall be preserved and protected from accidental or unauthorized destruction or modification.

12.1500 All records and communications relating to patients, recipients, donors/donor mothers or potential donors shall be kept strictly confidential.

12.1600 Records shall be made available for inspection by authorized individuals.

12.1700 Relevant to the processes performed at each site, records shall be maintained to ensure the identification and traceability/trackability of each donor/donor mother and cellular therapy product and all related samples from their initial source, through each processing and testing step to their final disposition and from final disposition, through each processing and testing step to the initial source. (12.3000 applies)

**12.2000      *Computerized Record Requirements***

- 12.2100      Center shall maintain the authenticity, integrity and confidentiality of all records, access to which is limited to authorized individuals.
  - 12.2110      Center shall have technical and operational support for information systems management
- 12.2200      Records shall be maintained in a way to ensure their integrity and preservation for the duration of the defined retention period and be retrievable
  - 12.2210      Before destruction of original records, copies of such records shall be verified as legible, indelible, and complete
- 12.2300      If not using NMDP developed computer systems, centers shall document the following:
  - 12.2310      System development, if done internally
  - 12.2320      Numerical designation of system versions with inclusive dates of use
  - 12.2330      Validation of system functionality (hardware, software and database)
  - 12.2340      Validation and monitoring of data integrity
  - 12.2350      All modifications to the system shall be authorized according to institutional procedures
- 12.2400      All centers shall document the following:
  - 12.2410      Installation and upgrades of the system
  - 12.2420      Training and continuing competency of personnel
  - 12.2430      Policies and procedures for system maintenance and operations
  - 12.2440      Ongoing backup procedures
  - 12.2450      Documented and tested procedures for data restoration
  - 12.2460      Offsite storage of electronic data records
- 12.2500      Computer records shall be protected to enable their accurate and ready retrieval throughout the period of required record retention.
- 12.2600      Center shall have an alternative system that permits continuous operation in the event that computerized data are not available.

**12.3000      *Retention of Records – Indefinite***

- 12.3100      Donor Center records pertaining to adult donors who have been activated for a formalized search and have any of the following records, shall be retained indefinitely:
- 12.3110      Consent documents for all stages of the search process
  - 12.3120      Health history screenings including reasons for permanent or temporary deferral
  - 12.3130      Infectious disease testing and/or laboratory results
  - 12. 3140      Documentation of abnormal findings and the notification/counseling of the relevant parties
  - 12. 3150      Records of adverse reactions and post donation complications and recovery
  - 12.3160      All source documents for any formalized search
- 12.3200      The following Cord Blood Bank records on units collected under NMDP Investigational New Drug application (IND) or listed with NMDP shall be retained indefinitely:
- 12.3210      All maternal consent documents for the collection, screening, testing, and storage of cord blood for unrelated allogeneic use
  - 12.3220      Maternal health history and family medical history screening and eligibility determinations, including reasons for permanent or temporary deferral
  - 12.3230      Infectious disease testing and other laboratory results
  - 12.3240      Documentation of abnormal findings and notification/counseling of relevant parties
  - 12.3250      Records pertaining to collection and all manufacturing steps though final distribution of cord blood products
  - 12.3251      Records pertaining to qualification, monitoring and use of reagents, supplies and materials shall be traceable to cord blood product
  - 12.3252      Records pertaining to qualification, monitoring, calibration, maintenance and use of equipment shall be traceable to the cord blood product



- 12.3253 Records pertaining to the traceability and tracking of all aspects of the manufacture of the cord blood unit with the exception of facility cleaning and sanitation records which are retained minimally for 3 years
- 12.3260 Records of reported recipient adverse reactions and post-administration complications
- 12.3300 Apheresis and Collection Center records which shall be retained indefinitely:
  - 12.3310 Consent documents from donors for the collection of products for unrelated allogeneic use
  - 12.3320 Screening and testing records
  - 12.3330 Records pertaining to collection, processing, labeling, packaging, storage, distribution and final disposition of collected product
    - 12.3331 Records pertaining to qualification, monitoring and use of reagents, supplies and materials shall be traceable to collected product
    - 12.3332 Records pertaining to qualification, calibration, maintenance, monitoring and use of equipment shall be traceable to collected product
    - 12.3333 Records pertaining to the traceability and tracking of all aspects of the manufacture of the HPC product performed at the site with the exception of facility cleaning and sanitation records which are retained minimally for 3 years
  - 12.3340 Records of adverse reactions and post-donation complications, treatment interventions and recovery
- 12.3400 Transplant Center recipient records which must be retained indefinitely:
  - 12.3410 Informed consent documents related to NMDP facilitated cellular therapy products
  - 12.3420 For recipient formal (activated) search activity, results of donor and recipient HLA typing and other test results at the Transplant Center including the identification numbers of participating donor(s).
  - 12.3430 Records pertaining to any NMDP facilitated search including:
    - 12.3431 The identification numbers of participating donor(s)/cord blood unit(s)

12.3432 Abnormal donor/cord blood unit or recipient findings and notification/counseling of relevant parties

12.3433 Product testing results, including ABO/Rh typing and microbial cultures

12.3440 Records related to adverse events associated with NMDP facilitated cellular therapy products

12.3450 Records related to final disposition of NMDP facilitated cellular therapy products

**12.4000      *Retention of Records – Finite (retain for a minimum of three years)***

12.4100 Donor center donor records pertaining to individuals who have been deleted from the Be The Match Registry<sup>®</sup> and had never been activated for a formalized search

12.4200 Records of donors who have been activated but deleted or deferred from the Be The Match Registry<sup>®</sup> prior to signing a search stage consent form or initiation of a health history questionnaire

12.4300 Recipient search requests and preliminary results of recipient searches that are never formalized

**12.5000      *Retention of Records – Donor Center Transferred Donors***

12.5100 Records, preferably originals, of all transferred donors shall be forwarded to the receiving donor center

12.5200 Copies of records pertaining to transferred donors who did not donate may be discarded by the transferring center after three years

**12.6000      *Retention of Records – Donor Center Closing Centers***

12.6100 Any center that ceases affiliation with the NMDP shall make provisions for maintenance or transfer of records as approved by the NMDP

## RESOURCES

**AABB:** <http://www.aabb.org/Pages/Homepage.aspx>

**American Society for Histocompatibility and Immunogenetics:** <http://www.ashi-hla.org/>

**Center for International Blood and Marrow Transplant Research (CIBMTR):**  
<http://www.cibmtr.org/>

**Centers for Medicare & Medicaid Services (CMS)-Approved Accreditation Organizations:** <https://www.cms.gov/>

**Circular of Information:** <http://www.aabb.org/Pages/Homepage.aspx> Search for “Circular of Information”

**College of American Pathologists (CAP):** <http://www.cap.org/apps/cap.portal>

**Food and Drug Administration:** <http://www.fda.gov/>

**European Federation for Immunogenetics (EFI):** <http://www.efiweb.eu/>

**International Council for Commonality in Blood Banking (ICCBBA):**  
**United States Consensus Standard for the Uniform Labeling of Cellular Therapy Products Using ISBT 128:** <http://www.iccbba.org/>

**Office of Human Research Protection (OHRP) requirements for a Federal Wide Assurance (FWA):** <http://www.hhs.gov/ohrp/> Search for “Federal Wide Assurance”

**The Foundation for the Accreditation of Cellular Therapy:**  
**NetCord-FACT: International Standards for Cord Blood Collections, Processing and Release for Administration; or**  
**FACT-JACIE: International Standards for Cellular Therapy Product Collection, Processing and Administration:** <http://www.factweb.org>

NOTE: The 22<sup>nd</sup> Edition of the NMDP Standards contains a list of internet resources that are provided as a courtesy. At the time of publication of this Edition, the website addresses were current. The NMDP does not control the content of all referenced websites, however, and the website addresses and associated content are subject to change. NMDP does not guarantee the accuracy of information provided on the websites, nor is it liable for reliance on the information.

<b>GLOSSARY</b>	
<b>Adverse Event (AE)</b>	Adverse event means any untoward medical occurrence associated with the donation or administration of a cellular therapy product.
<b>Apheresis Center</b>	Network facility that meets participation criteria for the collection of hematopoietic cells by apheresis from NMDP volunteer donors.
<b>Apheresis Collection:</b>	
• <b>HPC, Apheresis [HPC(A)]</b>	Hematopoietic cells collected using apheresis techniques after the donor has received growth factor.
• <b>TC, Apheresis [TC(A)]</b>	Leukocyte collection using apheresis techniques without the administration of growth factor. These are nucleated cells intended for therapeutic use other than as hematopoietic cells.
<b>Center/Bank</b>	A specific type of NMDP network entity
<b>Centers for Medicare &amp; Medicaid Services (CMS)</b>	The federal agency responsible for administering the Clinical Laboratory Improvement Amendments (CLIA). The Joint Commission (TJC), the American Osteopathic Association Healthcare Facilities Accreditation Program (HFAP), and Det Norske Veritas Healthcare (DNV) are examples of organizations which have been granted deemed status by the Centers for Medicare & Medicaid Services (CMS) for hospitals.
<b>Circular of Information (COI)</b>	The <i>Circular of Information for the Use of Cellular Therapy Products</i> (hereafter referred to as the <i>Circular</i> ) is an extension of container labels, as the space on those labels is limited. The focus of this <i>Circular</i> is restricted to unlicensed cellular therapy products that are minimally manipulated. The <i>Circular</i> is intended to provide general information to those who administer cellular therapy products and serves as an extension and enhancement of the label found on the cellular therapy product.
<b>Clinical Practice Guideline</b>	Standardized disease-specific treatment plan used in lieu of a research protocol when use of an unrelated donor transplant is considered standard of care.
<b>Collection Center</b>	NMDP network hospitals that meet participation criteria with experience and facilities to collect HPC, Marrow and care for donors before and after the collection procedure.

<b>Complaint</b>	Any communication referencing a problem associated with a cellular therapy product or the collection, screening, testing, processing, storage, distribution or infusion of a cellular therapy product.
<b>Confirmed Positive Test</b>	A donor infectious disease screening test that tested as positive, was repeated using a confirmatory test and was found to be positive.
<b>Confirmatory Testing Stage</b>	The designation of the stage in the search process during which a potential adult donor is being evaluated as a donor for a specific patient, commonly called CT.
<b>Consent</b>	Prospectively obtained permission for the collection and use of data, information, specimens or products, for the intended purpose or to conduct an approved research project.
<b>Continuous Process Improvement (CPI) Program</b>	A method of analyzing and managing the improvement of the NMDP Network's operations.
<b>Cord Blood Bank</b>	An NMDP network organization that meets participation criteria with experience, staff and facilities to collect, process and store HPC, Cord Blood [HPC(CB)]for transplant.
<b>HPC, Cord Blood [HPC(CB)]</b>	Hematopoietic cells collected from umbilical cord blood and placenta after delivery that has been typed and stored for potential future transplant.
<b>Customized Typing</b>	A service offered by the NMDP which allows transplant centers to select HLA loci, typing resolution and lab turnaround times for individual patients. The service is designed to reduce search times and increase flexibility during the search process on a case-by-case basis.
<b>Deviation</b>	A departure from applicable regulations or laws, procedures, protocols, standards or established specifications/requirements. Deviations can be planned or unplanned and may or may not result in unacceptable/unsuitable product or adverse result or outcome.
<b>Disposition</b>	The status assigned to a cellular therapy product based on evaluation of specific characteristics.

<b>Donor Center</b>	An NMDP network organization that meets participation criteria with the experience, staff and facilities to manage interaction with potential volunteer donors listed on the Be The Match Registry <sup>®</sup> .
<b>Abnormal Donor Findings</b>	An underlying condition or unusual test result that is identified as a result of the donor evaluation, which may increase risk for the donor or recipient, but is not necessarily a cause for deferral.
<b>Eligibility</b>	A determination as to whether a potential allogeneic cellular therapy donor who meets all donor screening and testing requirements related to transmission of infectious disease as defined by applicable laws and regulations.
<b>Examining Practitioner</b>	A licensed physician, Physician's Assistant, or Nurse Practitioner, consistent with Applicable Law.
<b>Federal Wide Assurance (FWA)</b>	A document filed by the institution with the Department of Health and Human Services (HHS) stating that the institution will comply with HHS regulations for the protection of human subjects.
<b>Food and Drug Administration</b>	A United States government agency under the direction of the Department of Health and Human Services charged with protecting American consumers by enforcing the Federal Food, Drug and Cosmetic Act.
<b>Hematopoietic Progenitor Cells (HPC)</b>	Primitive pluripotent cells capable of self-renewal as well as maturation into any of the blood cell lineages, and committed, lineage-restricted cells, regardless of the tissue source. Marrow: HPC, Marrow; HPC(M) PBSC: HPC, Apheresis; HPC(A) Cord Blood: HPC, Cord Blood; HPC(CB)
<b>Hematopoietic Cells</b>	An all inclusive term for hematopoietic progenitor cells and their progeny, e.g., differentiating cells and mature cells.
<b>Human Leukocyte Antigen (HLA) Typing</b>	The procedure by which HLA alleles (in the case of DNA-based typing) or HLA antigens (in the case of serological typing) are identified.
<b>Indefinite Record Retention</b>	Records identified as having an "indefinite" or similar retention requirement shall be retained for an indefinite period. For purposes of this definition, "indefinite" means retention shall be permanent and ongoing, unless and until a different retention period is specified for the documents at issue.

<b>Independent Ethics Committees (IEC)</b>	An independent body whose responsibility it is to ensure the protection of the rights, safety, and well-being of human subjects involved in research.
<b>Informed Consent</b>	The process of obtaining permission from an individual to participate in research or other operations of the NMDP, where the individual is informed of and has an opportunity to discuss the benefits, risks, and alternatives to his/her participation. Consent is based upon a clear appreciation and understanding of the relevant facts, implications, and future consequence of the decision. The consent is given voluntarily and free from undue influence or coercion.
<b>Institutional Review Board (IRB)</b>	An administrative body established in accordance with Title 45 CFR Part 46 to protect the rights and welfare of human research subjects recruited to participate in research activities conducted under the auspices of the institution with which it is affiliated.
<b>Manufacture</b>	Manufacture means, but is not limited to, any or all steps in the recovery, transport, processing, storage, labeling, packaging, shipping, or distribution of any human cell or tissue, and the screening or testing of the cell or tissue donor.
<b>National Coordinating Center</b>	The NMDP Coordinating Center, located in Minneapolis, Minnesota, establishes standards, policies, and procedures for its network of transplant, donor, apheresis and collection centers, cord blood banks, recruitment centers and cooperative registries.
<b>Nonconforming Product, Supply / Material or Service</b>	A failure of cellular characteristic, supply, reagent, dose or test results to meet specified requirements.
<b>Office of Human Research Protection (OHRP)</b>	An office within the Department of Health and Human Services, which is responsible for oversight of the board system to protect humans participating in research.
<b>Participating Center</b>	Donor, collection, apheresis or transplant center, recruitment center or cord blood bank that has submitted an NMDP application, meets NMDP criteria, and become a member of the NMDP network. Term references the facility, policies, staff, etc. composing the network entity.
<b>Processing</b>	Manipulation of the product in the laboratory setting.

<b>Record</b>	Information captured in writing or electronically that provides objective evidence of activities that have been performed or results that have been achieved, such as test records. Records do not exist until the activity has been performed and documented.
<b>Recruitment Center</b>	An NMDP network organization meeting participation criteria that performs donor recruitment. May also be known as a Recruitment Group.
<b>Shall</b>	Indicates a standard that is to be complied with at all times.
<b>Shipping</b>	The physical act of transferring a cellular therapy product within or between facilities. During shipping the product leaves the control of trained personnel at the originating or receiving facility.
<b>Should</b>	Indicates an activity that is highly recommended or advised, but for which there may be effective alternatives.
<b>Subsequent Donation:</b>	Collection of HPC, Apheresis; HPC, Marrow; TC, Apheresis; or other cellular therapy product from a donor for his/her original recipient or another recipient.
<b>Suitability, Medical</b>	The medical fitness of a potential allogeneic cellular therapy donor to proceed to donation, based on established criteria relative to medical risk associated with donation, as determined by medical evaluation and physician judgment.
<b>System</b>	Refers to computer systems for management of donor or recipient information and records.
<b>TC, Apheresis</b>	Nucleated cells obtained by an apheresis procedure intended for therapeutic use other than HPCs. Non-mobilized unless otherwise stated in the modifier.
<b>Traceability</b>	The ability to follow the history of a process, product or service by review of documents.
<b>Trackability</b>	The ability to follow a cellular therapy product from donor to consignee or final distribution and from consignee or final distribution to donor by review of documents.
<b>Transplant Center</b>	An NMDP network hospital based program that meets participation criteria with experience, staff and facilities to perform allogeneic stem cell transplantation.



<b>Transportation</b>	The physical act of transferring a cellular therapy product within or between facilities. During transportation the product does not leave the control of trained personnel at the originating or receiving facility.
<b>Variance From Standards</b>	A pre-approved short or long term deviation from a standard, which once approved by the NMDP, is in place prospectively for the specific standard. It must be demonstrated that donor/patient safety and product integrity are not negatively impacted prior to approval by the NMDP.

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