

# WMDA Scientific Publications & Recommendations

This webpage is based on the chapters of the [WMDA handbook](#) with the title 'A Gift for Life'  
Visit the code of conduct to review WMDA policies, click [here](#).

## Table of contents

- General Organisation of a Registry
- Recruitment and evaluation of volunteer donors
- Donor search request
- Collection and transportation
- Post-donation
- Cord blood banking
- Information technology and data management
- Publications in partnership with other professional societies
- Archived Publications

## WMDA Scientific Publications and Recommendations by subject

### General Organisation of a Registry

WMDA Standard	Responsible Pillar	Title and link to document	Explanation	Status
1.03	Global Development	<a href="#">Global Trends Report of WMDA</a>	Annual publication presenting the unrelated stem cell donor activity on a global scale.	Current (2024)
1.06	Global Development	<a href="#">Donor Centre Audit</a> <i>Bone Marrow Transplantation (2022) 57: 466–472</i>	<a href="#">Guidelines on how to review a donor centre including a checklist</a>	Current (2024)
1.06, 1.07, 1.08	Global Development	<a href="#">WMDA Guidance for Addition of New Affiliated Entity to a Registry</a>  <a href="#">Publication of WMDA Guidance for Cross-border Organisations</a>	Guidelines to incorporate a new affiliated entity (e.g. DC, CBB, TC, CC, commercial courier) base on the level of risk for the registry and for other WMDA members and take steps to reduce o eliminate that risk.  Guidelines for organisations that have affiliated donor or patient management entities located in a country different from the country where the parent organisations resides. Recommendations for applying or renewing WMDA Certification/Qualification/Accreditation	Current (2024)
2.10 2.10.1	Global Development	<a href="#">WMDA Quality Manual</a>  <a href="#">Notification and request for information regarding problems between registries</a>	A template for a quality manual for registries and cord blood banks.  A template for registry to registry problem management communication. Notification and request for information regarding a problem arising	Under review (2024)  Current (2020)
2.10.2	Global Development	<a href="#">World marrow donor association crisis response, business continuity, and disaster recovery guidelines.</a>  <i>Biology of Blood and Marrow Transplantation (2012) 18: 1785-1789</i>	This paper covers the minimal requirements of preparedness in prevention and mitigation, crisis response, business continuity, and disaster recovery, and the need for continued maintenance and revision. Issues of international cooperation are addressed as well.  Visit as well the following webpage: <a href="https://share.wmda.info/x/dQAOEw">https://share.wmda.info/x/dQAOEw</a>	Current (2020)
Related donors	Donor Care	<a href="#">Family donor care management: principles and recommendations</a>  <i>Bone Marrow Transplantation (2010) 45: 1269-1273</i>	This publication encourages increased collaboration between those caring for related and unrelated donors. It recommends that related donor care build on the extensive work which has already been undertaken in the unrelated donor field to homogenize care.	Current (2021)
Related donors	Donor Care	<a href="#">Related hematopoietic cell donor care: is there a role for unrelated donor registries?</a>  <i>Bone Marrow Transplantation (2015) 50: 637-641</i>	Paper outlining ways to enhance and homogenise related donor care and registries can play a role in counselling related donors and in collecting their hematopoietic stem cells.	Current (2018)
Donor engagement / Cell and Gene Therapy	Donor Care	<a href="#">Resources for Registries on Donor Engagement in CGT</a>	This resource kit is a collection of advice and materials on how to run discussion groups with donors from your registries. It has been designed to explore the broad theme of cell and gene therapy (including working with external organisations, sourcing starting material from donors, cryopreservation, etc.), and touches on a range of key topics that are of interest to us as a wider community.	Current (2024)
1.07	Global Development	<a href="#">WMDA Criteria and Process for Transplant Center Evaluation</a>	<b>CONDITIONS for EVALUATION</b>  A Transplant Center does <u>not</u> need to be evaluated for WMDA Search & Match Service access if the following apply: <ul style="list-style-type: none"><li>• TC is currently affiliated/has a written agreement with a registry qualified or accredited by WMDA</li><li>• TC is currently accredited by FACT-JACIE</li></ul> The WMDA criteria may be used by a registry to evaluate a TC under one or more of the following situations: <ul style="list-style-type: none"><li>• TC is located in a country without a registry</li><li>• TC is located in a country with a registry that does not have its own criteria for evaluating transplant centers</li><li>• TC is not affiliated with a registry qualified or accredited by WMDA</li><li>• TC is not evaluated according to WMDA Standard 1.07.1</li></ul> <b>MATERIALS FOR WMDA CRITERIA and EVALUATION OF TRANSPLANT CENTERS</b> <ul style="list-style-type: none"><li>• <a href="#">WMDA Criteria and Process for Transplant Center Evaluation</a></li><li>• <a href="#">WMDA Transplant Center Evaluation Form (to be used by WMDA)</a></li><li>• <a href="#">WMDA Transplant Center Evaluation Form (to be used by any registry)</a></li><li>• <a href="#">WMDA Transplant Center Reviewer Checklist</a></li><li>• <a href="#">WMDA Standards</a></li></ul>	Current (2024)

## Recruitment and evaluation of volunteer donors

WMDA Standard	Responsible Pillar	Title and link to document	Explanation	Status
2.08	Quality	<a href="#">Key Performance Indicators for Registries</a>	WMDA has defined five Key Performance Indicators (KPI) that represent the key activities of stem cell donor registries.  These key performance indicators are calculated annually from the WMDA Global Trends Report data.	Current (2024)
3.02	Global Development	<a href="#">Qualifications and training of adult stem cell donor recruiters: recommendations by the World Marrow Donor Association</a>  <i>Bone Marrow Transplantation (2013) 48: 1480150</i>	This paper provides recommendations regarding qualifications and training of recruiters. Online recruitment is not described in this paper.	Under review - Donor Recruitment & Donor Retention Committee
3.03, 3.04, 3.09, 6.07, 6.07.1, 3.24, 10.11, 10.13	Donor Care	<a href="#">Donor safety: the role of the WMDA in ensuring the safety of volunteer unrelated donors: clinical and ethical considerations.</a>  <i>Bone Marrow Transplantation (2010) 45: 832-838</i>	This paper provides information about the donor care standards of the WMDA. The paper was published in 2010, the wording of the WMDA Standards have changed over time.	Current (2021)
3.13 4.09	Donor Care	<a href="#">Unrelated hematopoietic stem cell donors as research subjects</a>  <i>Bone Marrow Transplantation (2011), 46: 10-13</i>	Discusses various implications of participation of unrelated stem cell donors in research protocols.	Current (2017)
3.22 3.22.1	Donor Care	<a href="#">Unrelated adult stem cell donor medical suitability: recommendations from the World Marrow Donor Association Clinical Working Group Committee.</a>  <i>Bone Marrow Transplantation 49:880-886</i>  <a href="#">Guidance for assessing the medical suitability for adult volunteer donors</a>	The paper provides a background to unrelated adult donor and recipient safety, recommends a common framework for assessing the health of unrelated adult donors at each stage of the donation pathway and presents a novel mechanism for sharing international consensus criteria for individual medical and lifestyle conditions.  The second publication reflects the consensus opinion provided by the WMDA donor medical suitability committee. The purpose of this guidance is to provide globally harmonised medical assessment criteria which simultaneously protect the interest of donors whilst ensuring the safety of cellular products across international boundaries.  The links in the article do not work anymore, find here the updated links: <a href="https://share.wmda.info/x/FABtEQ">https://share.wmda.info/x/FABtEQ</a>	Current (2021)
Consent / Cell and Gene Therapy	Donor Care	<a href="#">Consent Journey for Cell and Gene therapy (CGT) Donors</a>	The Cell and Gene Therapy (CGT) committee has created guidance documentation (incl. template) on donor consent for the donation of cells for purposes other than traditional HSCT donation. This guidance aims to provide registry members with the tools to address consent and the sharing of research information in the right manner, at the right time, and in the right format. This document can be adapted to local regulations.  <a href="#">2023 WMDA Cellular Therapy Committee - Consent Working Group Output.pdf</a>	Current (2024)

## Donor search request

WMDA Standard	Responsible Pillar	Title and link to document	Explanation	Status
2.07	Global Development	<a href="#">Recruitment, training, and ongoing educational requirements for donor registry search coordinators</a>	Recommendations by WMDA accredited registries on education of registry staff. Survey was performed in 2009.	Current (2024)
7.01	Donor Care	<a href="#">WMDA Guidelines for subsequent donations following initial BM or PBSCs</a>  <i>Bone Marrow Transplantation (2011) 46: 1409-1412</i>	This guideline is intended to outline where subsequent donations would routinely be considered appropriate (from the donor's point-of-view), as well as the frequency and timing of such donations. The background is outdated, the recommendations are current, the data are outdated and the survey information is outdated.	Under review, see <a href="https://share.wmda.info/x/8qWbEw">https://share.wmda.info/x/8qWbEw</a> for more information
3.03, 3.06, 6.06	Donor Care	<a href="#">Donor commitment and patient needs</a>  <i>Bone Marrow Transplantation (2004) 33: 225-230</i>	This paper describes ethical issues related to the donation of hematopoietic stem cell products with respect to recruitment, evaluation, workup, and follow-up of unrelated donors.	Current (2021)
	Global Development	<a href="#">WMDA Forms</a>	Forms for each step in the search process; WMDA forms will not be updated till the infrastructure of WMDA connect has been implemented. The goal is to generate the forms automatically through HTML code instead of fillable PDFs.	Current (2020)
	Donor Care	<a href="#">Addressing Ethical and Procedural Principles for Unrelated Allogeneic Hematopoietic Progenitor Cell Donation in a Changing Medical Environment</a>	In this paper, ethical and procedural principles in the context of HPC donation and requests for nonstandard donations are further clarified based on examples from daily practice. The goal is twofold: to provide guidance on applying ethical principles and to create a basis for awareness and understanding for the position of HPC adult volunteer donors and the organizations providing HPCs from these donors in the dynamic field of allogeneic HSCT, by posing questions.	Current (2021)

## Collection and transportation

WMDA Standard	Responsible Pillar	Title and link to document	Explanation	Status
8.05	Donor Care	Recommendation for recombinant human G-CSF (G-CSF) that stem cell registries can use - the use of biosimilar G-CSF  <ul style="list-style-type: none"> <li><a href="#">Recommendation G-CSF</a></li> <li><a href="#">Recommendation G-CSF extended</a></li> </ul>	WMDA recommendation on the use of biosimilar filgrastims.	Current (2018)
8.05	Donor Care	<a href="#">Current use of biosimilar G-CSF for haematopoietic stem cell mobilisation</a>  <i>Bone Marrow Transplantation (2019): 54, 858-866</i>	WMDA recommends that stem cell donor registries can use filgrastim biosimilars for the mobilisation of peripheral blood progenitor cells in healthy donors, provided that they are approved by national and/or regional agencies.	Current (2019)
3.03	Donor Care	<a href="#">Remuneration of hematopoietic stem cell donors: principles and perspective of the World Marrow Donor Association.</a>  <i>Blood (2010) 117: 21-25</i>	This paper describes the reasons that the WMDA continues to believe that donors should not be paid due to ethical concerns raised by remuneration, potential to damage the public will to act altruistically, the potential for coercion and exploitation of donors, increased risk to patients, harm to local transplantation programs and international stem cell exchange, and the possibility of benefiting some patients while disadvantaging others.	Current (2024)

1.08	Quality	<p><a href="#">Audits of collection and apheresis centers: guidelines by the World Marrow Donor Association Working Group Quality and Regulation</a></p> <p><i>Bone Marrow Transplantation (2018) 54: 244–257</i></p>	<p>This paper describes the general requirements and recommendations for collaboration with the collection and apheresis centers and defines critical procedures for the collection of the stem cell product, such as the information session, medical assessment, product collection, quality controls, product handover for transportation, and donor follow-up. The specific guidelines are accompanied by detailed checklists and forms that can be found in Supplementary Information and may be used during an initial or follow-up on-site or paper-based audit.</p> <ul style="list-style-type: none"> <li>• <a href="#">WMDA Collection Centre Checklist</a></li> <li>• <a href="#">Audit checklist</a></li> <li>• <a href="#">Evaluation form</a></li> </ul>	Current (2024)
8.07.1	Quality	<p><a href="#">Introduction and Importance of a Globally Unique Identity and Labelling Format (ISBT-128)</a></p> <p>Attachment A</p> <p>Attachment B</p>	<p>Currently being updated to accommodate GRID, this position paper encourages the benefit and criticality of a globally unique numbering system, WMDA recognizes the <i>ISBT 128</i> labelling standard as one that supports full traceability of cellular therapy products from the donor to the patient bedside and the flexibility to protect confidential information as defined by current and future international regulations.</p>	Under review
8.08	Quality	<p><a href="#">World Marrow Donor Association (WMDA) Guidelines for Couriers and the Transportation of Hematopoietic Progenitor Cells (HPC-BM, Apheresis and Therapeutic Cells- T Cells)</a></p>	<p>The paper describes recommendations for couriers and the transportation of haematopoietic progenitor cells.</p>	Under review (2024)
8.08	Quality	<p><a href="#">Validation of Product Transportation Containers</a></p>	<p>This report provides WMDA guidelines for validation of transport containers used for the distribution of HSC products</p>	Current (2018)
SPEAR Communication	Donor Care	<p><a href="#">2023/02 SPEAR Communication: Labelling Errors</a></p>	<p>The SPEAR committee has received reports of adverse events related to mis-labelling. One case resulted in infusion of the wrong product into a patient with a fatal outcome. Two cases related to re-labelling of products with ISBT labels. Mis-labelling adverse events can occur at all steps of the collection and processing pathway. The committee has issued a statement stressing the importance of correct labelling. Read it here: <a href="#">PDC.1301.COMM.Labelling Errors.pdf</a></p>	Current (2024)
SPEAR Communication	Donor Care	<p><a href="#">2023/08 SPEAR Communication: Preventing Unnecessary Donations</a></p>	<p>The impact of late cancellations on unnecessary donations was discussed with the SPEAR committee. A The critical component missing in the SPEAR cases discussed was closed loop communication. Therefore, the committee would like to highlight the importance of person-person communication to prevent unnecessary donation. The committee will continue to collaborate with the WMDA project group on back-up donors management and supports their soon to be published guidance. Read it here: <a href="#">PDC.1303.COMM.Unnecessary Donations.pdf</a></p>	Current (2024)
SPEAR Communication	Donor Care	<p><a href="#">2024/04 SPEAR Communication: HPC Products Missing in Transport</a></p>	<p>The SPEAR Committee received multiple reports of serious incidents involving product loss during transport. Two items were recovered, another was not. To prevent such similar incidents in the future, the SPEAR Committee publishes recommendations on best practices, emphasizing the need for thorough training, the importance of constant visual product control, and an assessment of the courier's readiness for traveling, including their capability for handling complicated journeys, in alignment with WMDA Standards and Transport Guidelines. Additional guidance on, but not limited to, non-air travel management is endorsed by the committee. Read it here: <a href="#">PDC.1305.COMM.HPC Products Missing in Transport.pdf</a></p>	Current (2024)

## Post-donation

WMDA Standard	Responsible Pillar	Title and link to document	Explanation	Status
9.03, 9.04	Donor Care	<a href="#">Safety of Living Donation of Hematopoietic Stem Cells</a> <i>Transplantation (2016) 100: 1329-1331</i>	This paper describes a decade of detailed examination of adverse donor events.	Current (2024)
9.03, 9.04, 5.04.1	Donor Care	<a href="#">Inadvertent completely HLA-mismatched allogeneic unrelated bone marrow transplant: lessons learned.</a> <i>Bone Marrow Transplantation (2016) 51: 1016-1018</i>	This paper describes a serious adverse event in which a patient was transplanted with stem cells from an incorrect donor due in large part to the inappropriate use of a supposedly unique donor identifier.	Current (2024)
	Donor Care	<a href="#">Serious Stem Cell Donation Events and Recipient Adverse Reactions Related to Severe Acute Respiratory Syndrome Coronavirus 2: Review of Reports to the World Marrow Donor Association</a> <i>Transplantation and Cellular Therapy (2023) Volume 29, Issue 8, August 2023, Pages 522.e1-522.e5</i>	This paper provides insight into SARS-CoV-2-related adverse events to the WMDA-operated Serious Product Events and Adverse Reactions (SPEAR) database. The Committee reviewed each report following the European Union definitions of a serious adverse event or reaction and determined the imputability and its impact. Reports submitted in 2020 were included in this analysis.	Current (2024)
	Donor Care	<a href="#">Genetic Findings of Potential Donor Origin following Hematopoietic Cell Transplantation: Recommendations on Donor Disclosure and Genetic Testing from the World Marrow Donor Association (WMDA)</a> <i>Transplantation and Cellular Therapy (2023)</i> , doi: <a href="https://doi.org/10.1016/j.jtct.2023.11.019">https://doi.org/10.1016/j.jtct.2023.11.019</a>	Provides recommendations and a framework to aid in registry decision-making when genetic mutations of potential donor origin are identified. This includes guidance on pre-donation consenting, post-donation testing of recipients and informing and managing donors when findings of potential donor origin are identified in recipients post-transplantation, aimed at protecting the health, rights, and wellbeing of the donor.	Current (2024)
SPEAR Communication	Donor Care	<a href="#">2023/02 SPEAR Communication: Near-Miss Donation From Donor With HIV</a>	The SPEAR committee received a report of a case which could have led to HIV transmission: a donor tested negative for HIV but was found to be positive on the day of donation. Based on this case, the committee provides recommendations to help protect donor and patient safety. Read it here: <a href="#">PDC.1302.COMM.Near-Miss Donation From Donor With HIV.pdf</a>	Current (2024)
SPEAR Communication	Donor Care	<a href="#">2023/08 SPEAR Communication: Subdural Haemorrhage Post-Donation</a>	The SPEAR Committee received various reports of subdural haemorrhage (SDH) in unrelated PBSC donors since the beginning of 2021. The cause of this condition in these donors and the relation to donation is not clear, however the committee feels it is good to share a summary of these events and some of the things that are worth considering regarding donor care. Read it here: <a href="#">PDC.1304.COMM.Subdural Haemorrhage.pdf</a>	Current (2024)

## Cord blood banking

WMDA Standard	Responsible Pillar	Title and link to document	Explanation	Status
4.03, 4.04, 4.05, 4.06	Global Development	<a href="#">Combined Private and Public Cord Blood Banking and Other Related Products</a>	Guiding principles for cord blood banks that operate a public and private inventory	Current (2019)
4.03	Global Development	<a href="#">WMDA Policy Statement on the Utility of Autologous or Family Cord Blood Unit Storage</a>	WMDA policy statement on private cord blood banking	Current (2019)
4.02	Global Development	<a href="#">Family-directed Umbilical Cord Blood Banking</a> <i>Haematologica (2001) 96: 1700-1707</i>	Educational paper about the distinction of different types of cord blood banking.	Current (2017)
4.26	Global Development	<a href="#">Recommendation for use of cord blood samples by cord blood banks and transplant centres</a>	Discussion for cord blood banks on how to handle reservation requests for attached segments	Under review (2018)

## Information technology and data management

WMDA Standard	Responsible Pillar	Title and link to document	Explanation	Status
5.04.1	Search, Match & Connect	<a href="#">Global Registration Identifier for Donors (GRID) of Hematopoietic Stem Cells: Road to Automation and Safety</a>  <i>Transfusion Medicine and Hemotherapy (2017), 44: 407-413</i>	An educational paper to explain why GRID is implemented on a global scale.	Current (2024)
5.04.1	Search, Match & Connect	<a href="#">GRID: Moving to Unique Donor Identifier</a>	A public webpage with educational materials to implement GRID in a registry.	Current (2024)
5.02	Search, Match & Connect	<a href="#">World Marrow Donor Association guidelines for the reporting of novel HLA alleles</a>  Jan A. Hofmann, Werner Bochtler, James Robinson, Jürgen Sauter, Medhat Askar, Lucie Houdova, Mark Melchers, Alexander H. Schmidt, Eric Spierings, Christine Urban, Alicia Venter, Martin Maiers, Steven G. E. Marsh, Hans-Peter Eberhard  <i>HLA: Immune Response Genetics (2023) DOI:10.1111/tan.15048</i>	The guidelines for the implementation and reporting of HLA nomenclature for the World Marrow Donor Association have served as a reliable standard for communication of HLA data in the hematopoietic cell transplantation process. Wider use of next-generation sequencing made a special provision of the guidelines increasingly pertinent: how to communicate novel HLA alleles.	Current (2024)
5.02	Search, Match & Connect	<a href="#">An update to the HLA Nomenclature Guidelines of the World Marrow Donor Association, 2012</a>  Bochtler W, Maiers M, Bakker JN, Baier DM, Hofmann JA, Pingel J, Rist HG, Oudshoorn M, Marsh SG, Müller CR, Hurley CK; Information Technology Working Group of the World Marrow Donor Association.  <i>Bone Marrow Transplantation (2013) 48: 1387-1388</i>	An update of the paper published in 2007. The update became necessary after the major revision of the WHO HLA nomenclature in April 2010. It now covers issues arising when alleles are withdrawn or renamed because of the continuous updating of the WHO HLA nomenclature. In addition, formal validation and interpretation rules for the so-called 'multiple allele codes' have been added.	Current (2024)
5.15.2 5.16	Search, Match & Connect	<a href="#">GRID Implementation Plan - Template</a>	This document provide a template developed by the GRID Task Force how to implement GRID in a registry	Current (2024)
5.15.2 5.16	Search, Match & Connect	<a href="#">Global Registration Identifier for Donors: ION database and GRID rules</a>	The purpose of this document is to provide: <ul style="list-style-type: none"> <li>• specifications for the structure of the Global Registration Identifier for Donors (GRID) and the Issuing Organization Number (ION) ;</li> <li>• information on how to obtain and update an ION ; and,</li> <li>• rules on the use of the GRID .</li> </ul>	Current (2024)
5.15.2 5.16	Search, Match & Connect	<a href="#">ISBT 128 Standard for Coding Medical Products of Human Origin</a>	The purpose of this document is to provide standards and guidance for the coding and labelling of medical products of human origin (MPHO) : blood, cellular therapy , tissue s, regenerated tissue, milk, fecal microbiota, topical products of human origin, in vivo diagnostic MPHO, and organs for transplant , as well as those plasma derivatives for which ABO is relevant	Current (2023)
5.17	Search, Match & Connect	<a href="#">World Marrow Donor Association framework for the implementation of HLA matching programs in hematopoietic stem cell donor registries and cord blood banks.</a>  <i>Bone Marrow Transplantation (2011) 46: 338-343</i>	This paper defines a comprehensive framework for HLA matching programs, which use intricate algorithms to rapidly select potential donors for a patient from a database and to present these donors in a prioritized list.	Current (2023)
	Search, Match & Connect	<a href="#">Information technology and the role of WMDA in promoting standards for international exchange of hematopoietic stem cell donors and products.</a>  <i>Bone Marrow Transplantation (2010) 45: 839-842</i>	Overview paper of the activities in the area of information technology, described in 2010. <ul style="list-style-type: none"> <li>• Standardized reference data sets for validation and plausibility controls for HLA and other data domains</li> <li>• Matching algorithm standards for determining histocompatibility</li> <li>• Communication standards between registries.</li> </ul>	Current (2023)
5.02	Search, Match & Connect	<a href="#">A comparative reference study for the validation of HLA-matching algorithms in the search for allogeneic hematopoietic stem cell donors and cord blood units.</a>  <i>HLA Immune Responds Genetic (2016) 87: 439-448</i>	A comparison of matching algorithms used different registries.	Under review

## Publications in partnership with other professional societies

WMDA Standard	Responsible Pillar	Title and link to document	Explanation	Status
	Donor Care	<a href="#">Suitability of haematopoietic cell donors: updated consensus recommendations from the WBMT standing committee on donor issues - The Lancet Haematology</a>  <i>The Lancet</i> (2022) <a href="https://doi.org/10.1016/S2352-3026(22)00184-3">https://doi.org/10.1016/S2352-3026(22)00184-3</a>	The contribution of related donors to the globally rising number of allogeneic haematopoietic stem cell transplantations (HSCT) remains increasingly important, particularly because of the growing use of haploidentical HSCT. Compared with the strict recommendations on the suitability for unrelated donors, criteria for related donors allow for more discretion and vary between centres. In 2015, the donor outcome committee of the Worldwide Network for Blood and Marrow Transplantation (WBMT) proposed consensus recommendations of suitability criteria for paediatric and adult related donors. This Review provides updates and additions to these recommendations from a panel of experts with global representation, including the WBMT, the European Society for Blood and Marrow Transplantation donor outcome committee, the Center for International Blood and Marrow Transplant Research donor health and safety committee, the US National Marrow Donor Program, and the World Marrow Donor Association, after review of the current literature and guidelines. Sections on the suitability of related donors who would not qualify as unrelated donors have been updated. Sections on communicable diseases, clonal haematopoiesis of indeterminate potential, paediatric aspects including psychological issues, and reporting on serious adverse events have been added. The intention of this Review is to support decision making, with the goal of minimising the medical risk to the donor and protecting the recipient from transmissible diseases.	NA
	Foundation	<a href="#">Position paper on Unproven Cell-Based Therapies: Current Global Status and Recommendations to the World Health Organization</a>	Direct-to-consumer marketing of unproven cell-based interventions has progressively become a global serious public health concern. Among cell therapeutics we can broadly distinguish immune cells (unmodified or gene modified natural killer T-cells) and stem cell-based interventions. Currently, there is a limited number of both immune and stem cell products with market authorization <sup>1</sup> and the current state of scientific evidence does not justify the use of most cell-based interventions outside of well-designed, strictly supervised and regulated clinical research studies.	NA
8.07	Quality	<a href="#">Circular of Information for the Use of Cellular Therapy Products</a>  <a href="#">PDF document</a>	The Circular of Information (Circular) for the Use of Cellular Therapy Products is intended to be an extension of the cellular therapy product label. It has been jointly prepared by the AABB Circular of Information for Cellular Therapy Products Task Force, which includes a collaborative group of multiple nongovernmental organizations that represent the cellular therapy field. The US Food and Drug Administration and the Health Resources and Service Administration also participated in the development and review process.  The Task Force intentionally limited its scope to only include minimally manipulated cellular therapy products such as peripheral blood progenitor cells, bone marrow, cord blood and leukocytes. The group recognizes there are multiple cellular therapy products that could not be adequately covered in the Circular. To accommodate this, the Circular includes multiple blank pages at the end of the document to allow for the addition of product or facility specific information.	NA
	Foundation	<a href="#">Hematopoietic stem cell transplantation activity worldwide in 2012 and a SWOT analysis of the Worldwide Network for Blood and Marrow Transplantation Group including the global survey.</a>  <i>Bone Marrow Transplantation</i> (2016) 51: 778–785	Paper outlining the transplant activity from 2006 till 2012.	NA



9.02	Donor Care	<p><a href="#">Allogeneic hematopoietic stem cell donation-standardized assessment of donor outcome data: a consensus statement from the Worldwide Network for Blood and Marrow Transplantation (WBMT).</a></p> <p><i>Bone Marrow Transplantation</i> (2012) 48: 220-225</p>	Global consensus document to perform long-term follow up on donors asses the impact of novel agents given to donors.	NA
3.22 3.22.3	Donor Care	<p><a href="#">Suitability Criteria for Adult Related Donors: A Consensus Statement from the Worldwide Network for Blood and Marrow Transplantation Standing Committee on Donor Issues.</a></p> <p><i>Biology of Blood and Marrow Transplantation</i> (2015) 21: 2052-2060</p>	Global consensus document with recommendations for donor workup and final clearance of family donors who would not be able to serve as unrelated donors because of their age or pre-existing diseases. This article covers different topics intending to support decision-making, with the goal of minimizing medical risk to the donor and protection of the recipient from transmissible diseases.	NA
	Quality	<p><a href="#">Definitions of histocompatibility typing terms</a></p> <p><i>Blood</i> (2011) 118: 180-183</p> <p><a href="#">Definitions of histocompatibility typing terms: Harmonization of Histocompatibility Typing Terms Working Group</a></p> <p><i>Human Immunology</i> (2011) 12: 1214-1216</p>	The papers define terms for HLA typing resolution, HLA matching, and a format for reporting HLA assignments. In addition, definitions of verification typing and extended typing are provided.	NA
4.02	Global Development	<p><a href="#">Family-directed Umbilical Cord Blood Banking</a></p> <p><i>Haematologica</i> (2001) 96: 1700-1707</p>	Educational paper about the distinction of different types of cord blood banking.	NA

	Global Development	"Worldwide Network for Blood & Marrow Transplantation (WBMT) special article, challenges facing emerging alternate donor registries"  <i>Bone Marrow Transplantation (2019)</i>	Paper outlining the challenges for emerging donor registries	NA
	Foundation	<i>Recommendations to Improve the Quality and Safety of Medical Products of Human Origin</i> , as an outcome of the Forum 25 meeting held in Lisbon, Portugal in September 2019.		NA

## Archived Publications

WMDA Standard	Title and link to document	Explanation	Status
2.07	<a href="#">Recommendation on the training of staff performing patient donor search and HLA matching activities</a>  <a href="#">Responsibilities of registry search coordinators</a>	Recommendations by WMDA accredited registries on education of registry staff. Survey was performed in 2009.	Out of date
	A gift for life (paper edition)	This is the first print of the WMDA Handbook for registries; it has been replaced by an online edition (online <a href="#">WMDA Handbook</a> ).	Out of date
	A gift for life (paper edition, Spanish translation) - un regalo para la vida - WMDA manual para la donación de células madre sanguíneas	This is the first print of the WMDA Handbook for registries; it has been replaced by an online English edition (online <a href="#">WMDA Handbook</a> ).	Out of date
10.11	<a href="#">Donor and liability of donor registries, donor centres and collection centres-recommendations</a>  <i>Bone Marrow Transplantation (2004), 33: 467-470</i>	The paper outlines the ethical aspects of liability of involved parties and the need for insurance coverage.  The article has shortcoming with the respect to legal advices.	Out of date
3.04, 3.05, 3.06, 3.09, 3.10.1, 3.11, 3.11.1, 3.13, 3.15	<a href="#">Informed consent--suggested procedures for informed consent for unrelated haematopoietic stem cell donors at various stages of recruitment, donor evaluation, and donor workup.</a>  <i>Bone Marrow Transplantation (2003) 31: 539-545</i>	This is a checklist on informed consent at the various stages. The paper has been replaced by the WMDA guidance to explain the WMDA Standards. The guidance can be found at: <a href="https://share.wmda.info/x/0wB7Cw">https://share.wmda.info/x/0wB7Cw</a>	Out of date
3.20 4.16	<a href="#">A special report: histocompatibility testing guidelines for hematopoietic stem cell transplantation using volunteer donors.</a>  <a href="#">Histocompatibility testing guidelines for hematopoietic stem cell transplantation using volunteer donors: report from The World Marrow Donor Association</a>  <a href="#">A special report: histocompatibility testing guidelines for hematopoietic stem cell transplantation using volunteer donors</a>	This publication is now outdated. It provided recommendations on the HLA typing of donors.	Out of date
	<a href="#">Standards, regulations and accreditation for registries involved in the worldwide exchange of hematopoietic stem cell donors and products.</a>  <i>Bone Marrow Transplantation (2010), 45:819-824</i>	WMDA has developed online documentation to explain the accreditation process, which is available at WMDA Share under the pillar: 'Ensuring Quality'	Out of date

	<p>International exchange of cord blood units; the registry aspects</p> <p><i>Bone Marrow Transplantation (2010), 45: 825-831</i></p>	Replaced by chapter 6 of the WMDA Handbook: A Gift of Life	Out of date
1.03	<p>Monitoring the international use of unrelated donors for transplantation: the WMDA annual reports.</p> <p><i>Bone Marrow Transplantation (2010) 45: 811-818</i></p>	<p>This report describes the trends throughout the 12 years that data have been collected and the results of the WMDA Annual Reports 2008, summarizing the activity as of 1 January 2009.</p> <p>The paper is updated annually by the Global Trends Report, see following link: <a href="https://share.wmda.info/x/whhcAQ">https://share.wmda.info/x/whhcAQ</a></p>	
8.05	<p>Concerns about the use of biosimilar granulocyte colony-stimulating factors for the mobilisation of stem cells in normal donors: position of World Marrow Donor Association.</p> <p><i>Haematologica (2011): 96:942-943</i></p>	<p>The aim of this paper is to review the basis of regulatory approval of the biosimilar G-CSF agents, including the available safety data, with reference to the indication for mobilization of PBSC in normal donors and to make recommendations based on these.</p> <p>The recommendation was updated in 2017.</p>	Out of date
3.22 3.22.2	<p>A review of the genetic and long-term effects of G-CSF injections in healthy donors: a reassuring lack of evidence for the development of haematological malignancies</p> <p><i>Bone Marrow Transplantation (2015) 50: 334-340</i></p>	<p>This paper is an update from the statement issued by WMDA in 2007. On the basis of an assessment of a continuing lack of evidence for an increased risk of malignancy in donors receiving G-CSF, the WMDA has re-issued an updated statement.</p> <p>The recommendation was updated in 2017.</p>	Out of date
3.22 3.22.2	<p>Haematopoietic stem cell donor registries: World Marrow Donor Association recommendations for evaluation of donor health.</p> <p><i>Bone Marrow Transplantation (2008) 42: 9-14</i></p>	<p>This document describes criteria for permanent or temporary deferral, guidelines for risk evaluation of infectious disease, examples of conditions requiring assessment and questionnaires designed to elicit relevant information about a donor's medical history and general health.</p> <p>The paper was updated in 2014.</p>	Out of date
	<p>World Marrow Donor Association: international standards for unrelated hematopoietic stem cell donor registries</p> <p><i>Bone Marrow Transplantation (2004) 34: 103-110</i></p>	A paper describing the first publication of the WMDA Standards, the current version of the WMDA Standards can be found at: <a href="https://www.wmda.info/professionals/quality-and-accreditation/wmda-standards/">https://www.wmda.info/professionals/quality-and-accreditation/wmda-standards/</a>	Out of date
	<p>Overview of registries, HLA typing and diversity, and search algorithms</p> <p><i>Tissue Antigens (2007) 69: 3-5</i></p>	This paper is an inventory of the registries HLA typing methods and quality control used to evaluate the accuracy of typing results.	Out of date
5.02	<p>World Marrow Donor Association guidelines for use of HLA nomenclature and its validation in the data exchange among hematopoietic stem cell donor registries and cord blood banks. Bochtler W, Maiers M, Oudshoorn M, Marsh SG, Raffoux C, Mueller C, Hurley CK.</p> <p><i>Bone Marrow Transplantation (2007) 39:737-741</i></p>	This paper was updated in 2012, find here the link to the updated publication: <a href="https://www.nature.com/articles/bmt201393">https://www.nature.com/articles/bmt201393</a>	Out of date
	<p>HLA dictionary 2004: summary of HLA-A, -B, -C, -DRB1/3/4/5, -DQB1 alleles and their association with serologically defined HLA-A, -B, -C, -DR, and -DQ antigens.</p> <p><i>International Journal of Immunogenetics (2005) 32:19-69</i></p>	The paper provides information on the serological equivalents for DNA typings. The paper was updated in 2009. It is recommended to visit the <a href="#">IMGT/HLA website</a> for the most recent information.	Out of date
	<p>The HLA Dictionary 2001: a summary of HLAA, B, C, DRB1/3/4/5 and DQB1 alleles and their association with serologically defined HLAA, B, C, DR and DQ antigens</p> <p><i>European Journal of Immunogenetics (2001) 28: 565-596</i></p>	The paper provides information on the serological equivalents of HLA alleles. The paper was updated in 2004. It is recommended to visit the <a href="#">IMGT/HLA website</a> for the most recent information.	
	<p>The HLA dictionary 1999: a summary of HLA-A, -B, -C, -DRB1/3/4/5, -DQB1 alleles and their association with serologically defined HLA-A, -B, -C, -DR, and -DQ antigens.</p> <p><i>Human Immunology (1999) 11: 1157-1181</i></p>	The paper provides information on the serological equivalents of HLA alleles. The paper was updated in 2001. It is recommended to visit the <a href="#">IMGT/HLA website</a> for the most recent information.	Out of date
	<p>The search for HLA-matched donors: a summary of HLA-A*, -B*, -DRB1/3/4/5* alleles and their association with serologically defined HLA-A, -B, -DR antigens.</p> <p><i>Tissue Antigens (1997) 50: 401-418</i></p>	The paper provides information on the serological equivalents of DNA typings. The paper has been updated in 2001. It is recommended to visit the <a href="#">IMGT/HLA website</a> for the most recent information.	Out of date
	<p>A special report: suggested procedures for international unrelated donor search from the donor registries and quality assurance working groups of the World Marrow Donor Association (WMDA).</p> <p><i>Bone Marrow Transplantation (2004) 34: 97-101</i></p>	This paper described the procedures and responsibilities in the search for international unrelated donors. The paper has been replaced by the WMDA Handbook: A Gift of Life.	Out of date

	Haematopoietic Stem Cell Registries: WMDA definitions of a donor center (2004)	This paper has been replaced by the paper: "Qualifications and training of adult stem cell donor recruiters"	Out of date
	Donor work-up and transport of bone marrow-- recommendations and requirements for a standardized practice throughout the world from the Donor Registries and Quality Assurance Working Groups of the World Marrow Donor Association (WMDA).  <i>Bone Marrow Transplantation (1997) 20: 621-629</i>	One of the first WMDA publications describing donor work-up. More current information can be found in the <a href="#">WMDA handbook</a> .	Out of date
	A special report: bone marrow transplants using volunteer donors-- recommendations and requirements for a standardized practice throughout the world--1994 update. The WMDA Executive Committee  <i>Blood (1994) 84: 2833-2389</i>	This paper amplifies the previous publication and gives special attention to accreditation of national "hubs" (defined as coordinating centers for each country) and donor, harvest, and transplant centers, details of the marrow harvest procedure, use of peripheral blood (PB) stem cells for allografting, and use of PB lymphoid cells for treatment of leukemia relapsing after BMT.  Historical document where the WMDA Standards are presented.	Out of date
	Bone marrow transplants using volunteer donors-- recommendations and requirements for a standardized practice throughout the world. The Executive Committee of the World Marrow Donor Association.  <i>Bone Marrow Transplantation (1992) 10: 287-291</i>	Historical paper of WMDA, the first publication, outlining the hub concept.	Out of date
	Towards a global system of vigilance and surveillance in unrelated donors of haematopoietic progenitor cells for transplantation.  <i>Bone Marrow Transplantation (2013) 48: 1506-1509</i>	This paper describes WMDA's implementation of an international reporting system for serious adverse events and reactions. The way the SPEAR Committee operates has changed.	Out of date