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**WMDA Guidelines for couriers and the transportation of cellular therapy products**

Contents

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## Introduction

The WMDA is a worldwide network of organisations that facilitate the provision of stem cells and cellular therapy products from voluntary unrelated donors to patients in need of haematopoietic stem cell transplantation or other forms of cellular therapy. During shipment, stem cells are at their most vulnerable, making specialised handling and high-quality transport essential to ensure the integrity of products and the safety of patients.

These guidelines cover the transportation of both fresh (non-cryopreserved) and cryopreserved cellular therapy products, recognising that different modes of shipment are now routinely used. Fresh products collected from adult volunteer donors are typically transported by trained couriers (accompanied transport), while cryopreserved products can also be shipped unaccompanied under validated conditions using appropriate temperature- controlled systems and specialised transport (freight).
The principles and recommendations outlined aim to ensure the integrity, safety, and timely delivery of all cellular therapy products, whether fresh or cryopreserved. When referring to cellular therapy products in these guidelines, this term also includes both fresh and cryopreserved stem cells, as well as any other therapeutic products containing cells from voluntary stem cell donors.

In addition, these guidelines distinguish between national and international transport. While international transport requires strict adherence to globally harmonised standards, national or domestic transport may fall under different legal, logistical, or operational requirements within individual countries. Organisations may therefore adapt these guidelines for domestic use, provided that any amendments continue to safeguard product integrity, traceability, and patient safety.

These guidelines are specifically intended for professional courier companies and specialised transport providers. They do not apply to individual volunteer couriers. When an organisation makes use of a courier service, exceptions to standard practice may be made under certain conditions or circumstances at the discretion of that organisation. Such exceptions should always ensure that the quality and safety of the cellular therapy product remain uncompromised.

## 1. Couriers

The courier has sole responsibility for the safe and timely transport of the cellular therapy product from the collection centre to the transplant centre. Selection and assignment of courier responsibility is a collaborative process involving the national registry, transplant centre, and collection facility.

Typically, either the supplying organisation or the receiving organisation assumes responsibility for the courier and is designated as the ‘courier registry’. The courier registry is responsible for ensuring that the courier is appropriately trained and qualified. The courier is considered to have been provided by the courier registry whether they are an internal staff member or a representative of an external, specialised courier company contracted for the transport.

Handover of cellular therapy products to and from the courier must occur in a controlled clinical environment, following established chain-of-custody and product identification procedures.

### 1.1 Courier requisites

Couriers must be appropriately trained, qualified, and equipped to fulfil the responsibilities described in these guidelines. The transplant centre or receiving registry is responsible for providing any additional or product-specific transport requirements.

To be selected as a courier, the individual must:

- Not be related to the donor or the recipient;
- Be an experienced and independent international traveller;
- Be fit for travel;
- Have no other professional or personal commitments until delivery of the cellular therapy product has been completed;
- Be trained in all applicable policies, procedures, and regulatory requirements for the transportation of cellular therapy products;
- Have adequate command of English and/or the language(s) used in the countries involved in the transport;
- Possess a mobile phone with international roaming capability; and
- Have access to a credit card with a reasonable limit for travel-related expenses.

It is strongly recommended that couriers gain prior experience in the transport of cellular therapy products within their country of residence before undertaking international assignments.

### 1.2 Commercial courier companies

When a commercial courier company is used, there must be a formal, clearly defined relationship between the transport company and the organisation responsible for the arrangement, preferably established through a contract or service level agreement (SLA). The courier company must recognise that routine transport procedures may not be suitable for cellular therapy products. Services must therefore be customised to meet *WMDA Guidelines for couriers and the transportation of cellular therapy products* and the specific requirements of the providing and receiving registry.

Commercial courier companies must:

- Provide trained couriers who meet all registry and WMDA certification requirements described in the *WMDA International Standards Unrelated Haematopoietic Stem Cell Donor Registries*[1] and the *WMDA Guidelines for couriers and the transportation of cellular therapy products*[2];
- Maintain an established quality management system (QMS) ensuring consistent compliance with *WMDA International Standards Unrelated Haematopoietic Stem Cell Donor Registries*[1] and the registry's transport procedures; and
- Ensure that the QMS includes, at minimum, courier selection, training, incident management, and documentation of corrective actions.
- Although a courier company may be authorised to conduct its own training, the registry making the arrangement retains ultimate responsibility for verifying that couriers are adequately trained and competent.

In accordance with *WMDA International Standards Unrelated Haematopoietic Stem Cell Donor Registries*[1], critical transport conditions, including temperature control, packaging configuration, and defined time limits must be specified to maintain the integrity and viability of the cellular therapy product. Packaging and transport instructions should be provided to the courier in advance.

Registry policies must also address:

- Criteria for courier designation and qualification;
- Resources and contact information available to couriers;
- Procedures for managing travel disruptions or delays;
- Defined transport temperatures and maximum time limits for both fresh and cryopreserved products;
- Communication procedures to confirm receipt by the transplant centre; and
- Measures to prevent product damage and maintain anonymity of both donor and recipient.

These provisions help ensure that transport is performed safely and reliably, and that the donor does not undergo an unnecessary procedure due to compromised product integrity.

### 1.3 Courier responsibilities

Fresh Cellular Therapy Products

The courier is responsible for ensuring that the cellular therapy product is transported safely from the collection centre to the transplant centre in the shortest possible time and under the temperature conditions specified by the transplant centre.

Some registries may recommend that non-cryopreserved cellular therapy products are transported between +2 °C and +8 °C, unless otherwise instructed by the receiving facility[3]. The courier must:

- Remain in continuous possession of the cellular therapy product at all times;
- Carry and protect all documentation required for product transport and customs clearance;
- Verify the accuracy and legibility of all product labels and accompanying documentation;
- Ensure that the product bags and associated samples are correctly placed and secured within the validated transport container (see Section 4);
- Make every possible effort to prevent the product from passing through X-ray or other irradiation screening during security checks[4];
- Comply with all export, transit, import, customs, and aviation-security regulations of the countries involved;
- Deliver the product directly to the designated authorised recipient at the transplant centre or processing laboratory;
- Notify the designated First Point of Contact (registry or transplant centre) immediately in the event of any delay, incident, or deviation from planned transport conditions (see Section 7);
- Abstain from alcohol, recreational drugs, and any medications that may impair alertness or judgement while performing courier duties; and
- Always Maintain strict donor and recipient confidentiality (see Section 1.7).

Cryopreserved Cellular Therapy Products

For cryopreserved cellular therapy products, the courier company's primary responsibility is to maintain the product within the validated cryogenic temperature range and to ensure the integrity of the shipping container throughout transport.

The courier company must:

- Verify that the dry shipper or equivalent cryogenic transport container has been pre- conditioned, validated, sealed, and labelled in accordance with applicable regulations and registry instructions;
- Confirm that a data logger or other continuous temperature-monitoring device is installed, activated, and functioning before departure, ensuring temperature is continuously recorded throughout transport;
- Ensure the dry shipper remains upright, secure, and protected from shock, damage, or tipping during all phases of transport;

- Ensure that the outer container conforms to relevant transport regulations and is made of material adequate to withstand pressure changes, vibration, and other handling stresses;
- Prevent unauthorised opening or tampering with the container;
- Carry and safeguard all documentation relating to the shipment, including temperature validation data, customs and transit documents, and contact details of responsible personnel;
- Immediately notify the designated First Point of Contact (registry or receiving facility) in case of temperature alarm, delay, incident, or container damage, and document any deviation from expected conditions;
- Deliver the cryopreserved product directly to the designated authorised recipient at the receiving laboratory or transplant centre;
- Ensure that individuals involved in the transportation of products abstain from alcohol, recreational drugs, and any medication that may impair alertness or judgement while performing courier duties; and
- Maintain strict donor and recipient confidentiality at all times (see Section 1.7).

The courier company must ensure that the temperature records from the data logger are transferred to the responsible registry or receiving facility upon delivery, and that these records are retained as part of the transport documentation in compliance with registry quality management requirements.

### 1.4 Equipment

All couriers must carry equipment that ensures the safe and secure transport of cellular therapy products under the specified conditions. Required equipment includes:

- A qualified isothermal transport box or a rigid, puncture-resistant, thermally insulated cooler for the transport of fresh (non-cryopreserved) cellular therapy products. The transport container must be qualified as fit for purpose, in accordance with *WMDA International Standards Unrelated Haematopoietic Stem Cell Donor Registries*[1] and WMDA guidelines for validation of transportation containers[5];
- Coolant packs or isothermal temperature shells, as specified for the required temperature range;
- Protective packaging materials to secure and cushion any glass tubes or ancillary samples;
- Programmed data loggers or thermometers with external temperature display, to document that temperature has been maintained within the acceptable range throughout transport at consistent intervals;
- Disposable gloves for safe handling and inspection of the product and containers, and appropriate labels for the transport container;
- Shipping and identification labels as required by the sending and/or receiving registry and in accordance with applicable regulatory standards.
- All transport equipment must be maintained, cleaned, and requalified at defined intervals to ensure integrity and ongoing suitability for use.

### 1.5 Documentation

Comprehensive and accurate documentation is essential to ensure the traceability, legal compliance, and integrity of cellular therapy products during transport. Product documentation must be prepared and provided by the collection centre, transplant centre, or sending organisation, in accordance with local policy. The transport organiser or responsible registry is accountable for ensuring that all required documents are complete and accompany the shipment. When a commercial courier company is used, the company must ensure that couriers carry all necessary personal and shipment documentation.

Product documentation may include:

- Verification of the prescription or request for cellular therapy product collection;
- Donor infectious disease marker testing results (most recent and within 30 days of collection);
- Import and/or export permits as required by local and national authorities;
- Letters to airport or transport security authorities at departure, transit, and arrival locations;
- Product accompanying documentation issued by the collection centre;
- Contact information (name, address, and 24-hour phone number) for both the collection facility or donor registry and the transplant centre;
- Results of preliminary testing or product release criteria, such as cell counts where applicable;
- Any quarantine or customs requirements relevant to shipment;
- Information regarding any processing or manipulation of the cellular therapy product;
- The Circular of Information[6] or equivalent documentation; and
- Any additional documents required by the sending or receiving registry.

Personal documentation for couriers may include:

- Valid passport (with at least six months' validity beyond trip completion);
- Travel authorisation or visa, if required;
- Airline, train, or ground transport tickets, or instructions for ticket purchase;
- Printed itinerary for road or multi-leg travel;
- Accommodation reservation information;
- Travel insurance, if required by the registry or employer;
- Letters of introduction from the transplant centre and/or registry;
- Foreign currency for necessary expenses; and
- A mobile phone with international roaming capability.
- All documentation must be reviewed for accuracy prior to courier departure and retained according to registry policy and applicable regulations.

### 1.6 Luggage

- Cellular therapy products must never be placed in checked luggage or in the courier's personal cabin baggage. The product should be positioned under the seat in front of the courier, when feasible, to maintain continuous custody and easy access during transport.
- Couriers should be aware that most airlines, particularly on international routes, strictly enforce limits on the number, size, and weight of cabin baggage, including the transport cooler. While personal items may be carried as cabin baggage, many airlines may require that personal luggage be checked in.
- Unfrozen coolant packs not in use for the transportation of cellular therapy products may also need to be checked in, depending on airline regulations and space limitations.

### 1.7 Confidentiality

- The courier must adhere to the policies and procedures of the relevant national registries, transplant centres, and collection facilities regarding interactions with donors, recipients, and staff.
- Couriers must not disclose any information that could lead to the identification or location of the donor or recipient. This includes verbal, written, or electronic communications with family members, healthcare staff, or any third parties.
- The courier must ensure that labels, documentation, and transport containers do not compromise the confidentiality of the donor or recipient.

- Couriers are prohibited from accepting gifts, letters, or other materials intended for delivery to the donor or recipient.
- Compliance with these confidentiality requirements is mandatory and forms an integral part of the courier's professional responsibilities.

### 1.8 Insurance

Couriers may be covered by travel insurance for international destinations in accordance with their registry or commercial courier company policies. It is recommended that the courier's organisation considers product liability insurance.

## 2. TRANSPORT ARRANGEMENTS

### 2.1 Flight arrangements

The following must be taken in to account when arranging courier flights:

- Flights must be booked in advance and should occur as soon as possible after the product is released to minimise risk by initiating transport;
- Flights must be booked with minimum stopovers when HPC products are in-hand;
- Appropriate aisle seat allocation should be requested with sufficient room to enable the courier to check the temperature of the HPC during transit;
- The courier must be aware of alternative modes of transport and have appropriate
- contingencies in place if substantial delays to airline schedules arise due to inclement weather or other incidents.
- Backup flights should be arranged if permitted by the airline;
- Notification of airline and security staff at airports, by the registry organising the shipment, is required at some airports and generally recommended for any departure, arrival and transit airport;
- For long distance flights (over 5 hours) the courier should make contact with the collection centre at least one day prior to the scheduled collection;
- All changes in original transport arrangements must be communicated immediately to the transplant centre and requesting registry;
- The collection centre and registry must be provided with the itinerary and contact numbers of the courier prior to departure of the courier.

### 2.2 Motor vehicle transport arrangements

When the transplant centre, in consultation with the registry decides that the most efficient method of transport of the HPC is by car, the following issues must be considered to ensure that the transport of the HPC will not be delayed should the car breakdown, be involved in an accident, or held up by other road conditions or unrelated events:

- Two couriers should accompany the HPC so that one courier may stay with the car whilst the other accompanies the HPC by other means of transport;
- Couriers must have no other commitments that may interfere with timely delivery;
- Both couriers must have a valid driver's licence;
- An up-to-date GPS car navigation system should be available;
- A hard copy of the travel route must be available;
- The couriers must maintain contact with the cell product at all times;
- The couriers must be aware of alternative modes of transport in case substantial delays arise;
- All changes to original transport arrangements must be communicated immediately to the transplant centre and receiving registry;

The couriers are responsible for their driving behaviour. Traffic fines are to be paid by the courier, not by the transplant centre; and Insurance must be arranged to cover vehicle use, transport of the cellular therapy product, and potential contingencies.

## 3. LABELLING

Labelling should adhere to IATA (International Air Transport Authority) and national regulations concerning the safe handling and transport of biological material at all times (www.iata.org).

### 3.1 Labelling of HPC product and blood samples

Labelling of cellular therapy products and accompanying blood samples must comply with regional, state, or national regulatory requirements, any applicable manufacturing license requirements of the collection or transplant centre, and current FACT–JACIE standards[7]. Labels must be legible, durable, and printed using waterproof ink.

At a minimum, labels should include the following information:

- Unique numeric or alphanumeric product code;
  Donor identification code;
- Recipient identification code;
- Type/proper name of the product;
- ABO group and Rh type of the donor;
- Collection date, time, and time zone at the end of collection;
- Product volume and/or cell count;
- Bag number and total number of bags (courier is responsible for verifying this information);
- Processing details, if applicable;
- Mandatory statements in accordance with current FACT–JACIE Standards[7]; and
- Name and 24-hour contact information of the transplant centre responsible for receiving the product.

Labels and documentation must be accurate and consistent to facilitate safe transport and processing, maintain traceability, and comply with applicable regulatory and quality requirements.

### 3.2 Labelling of transport container

The outside of the cooler should be labelled with the appropriate wording (regarding local regulations), for example:

> MEDICAL SPECIMEN – HANDLE WITH CARE DO NOT X-RAY
> WARNING: Contains human tissue for transplantation
> Do not place near heat
> Do not freeze
> Do not delay delivery

When transporting the cooler without the cellular therapy product, the label should be covered by the courier and allowed to pass through all security checkpoints including X-ray machines if required. Address labels for the transplant centre including institution, address, contact details and phone numbers should be affixed to the cooler in accordance with current FACT/JACIE standards[7] or other local regulations but ensuring donor/ recipient confidentiality during transportation.

## 4. PACKING HPC FOR TRANSPORTATION

### 4.1 Containers

Proper selection and preparation of transport containers are essential to maintain the integrity and viability of cellular therapy products throughout transport. Containers must be capable of maintaining the required temperature range, protecting the product from mechanical damage, and allowing for monitoring during transit.

Packaging and shipping containers must be qualified as fit for purpose to maintain the required temperature for at least the anticipated transit time, under the expected range of external temperatures[5].

Data loggers are recommended for all cellular therapy product shipments to continuously record temperature during transport. Where required by the registry or transplant centre, thermometers with a protected probe and external temperature display may be used. This ensures that any deviations from specified conditions are detected and documented, helping to preserve product quality.

Couriers must be familiar with the operating instructions for both the container and the data logger, including activation, placement, and monitoring procedures.

Individual donor registries may establish policies on behalf of transplant centres, and procedures may vary; however, the considerations outlined in Sections 4.2 and 4.3 should be applied as standard practice.

### 4.2 Isothermal Transport Box

When transporting fresh (non-cryopreserved) cellular therapy products using an isothermal transport box, the following procedures should be observed:

- Place the cellular therapy product with a data logger or temperature probe, if required, inside the preconditioned temperature shell (frames and extenders) and secure the top with a rubber band;
- Place the temperature shell, together with any other preconditioned shells, inside the isothermal transport box;
- Lock the isothermal box according to manufacturer instructions; and
  - If the elements and extender frames have been conditioned correctly and the cellular therapy product has been pre-cooled to approximately +4°C, the isothermal box may maintain the product temperature between +4°C and +8°C for a period up to 50 hours; actual performance depends on the specific model and manufacturer specifications.

### 4.3 Cooler and Coolant Packs

- If required, attach the probe of a thermometer or data logger if available to the outer bag;
- Arrange bags, pre-chilled or pre-frozen coolant packs and any insulating material as specified by transplant centre for adequate temperature control over the estimated transit time into the cooler;
- Bags of cellular therapy product must be thermally insulated from frozen coolant packs to avoid spot freezing;
- Rock the cooler gently at specified intervals if requested;
- Check the temperature every 1 to 2 hours from the external data display if not using data loggers and record the temperature;
- The temperature of the cellular therapy product should be maintained at no less than +2°C. This is easily achievable if the temperature monitor is secured externally on the lid of the cooler. There is no need to open the cooler;
- For transit times over 8 to12 hours, coolant packs may need to be changed to maintain the temperature. Dry ice can be available by prearrangement with the airline.
- The dry ice is used only for re-cooling the coolant packs;

NEVER place dry ice in the cooler with non-cryopreserved product. The presence of dry ice may result in the bags containing the cellular therapy product becoming brittle and subject to fracture. Furthermore, the product may be frozen in the absence of cryoprotectant.

### 4.4 Additional product samples

Additional peripheral blood or bone marrow samples should be placed inside smaller transport containers or plastic bags prior to placing in cooler or isothermal transport box with the cellular therapy product.

### 4.5 Transportation of Haematopoietic Progenitor Cells Marrow (HPC-M)

The collection centre should ensure that the collection media has been validated according to local protocols to provide sufficient anticoagulation and viability of bone marrow during the estimated transit time. Bone marrow collected for adults and large paediatric recipients should be divided into at least two blood collection/ transfer packs. If the scheduled departure time is late in the day, transplant coordinators may request the collection centre via the relevant registry to store the cells at +4°C for collection by the courier at a time suitable for flight connections.

Collection centres should wherever possible, depending on availability of equipment, provide cellular therapy products in bags:

- without spikes or access sites inserted;
- with lines heat sealed rather than clipped and of sufficient length to allow the use of a sterile connecting device to access the bag if required; and
- with at least one port available for use at the transplant centre.

### 4.6 Transportation of Haematopoietic Progenitor Cells Apheresis (HPC-A), Therapeutic Cytapheresis (TC) and Mononuclear Cell (MNC)

Although this may vary according to local protocols, anticoagulant will be added to apheresis products during collection on the cell separator and as programmed by the apheresis machine. For long distance transportation and/ or overnight storage of HPC-A, the final concentration of nucleated cells in the collection is important for viability. To minimize the loss of viability, the concentration of nucleated cells should be reduced by the addition of autologous plasma in the processing laboratory. Apheresis products are usually transported in the collection pack of the cell separator kit (i.e. 1 bag per apheresis collection).

The majority of cellular therapy product collections by apheresis require a single day of collection, so the courier should anticipate leaving after the first scheduled day of collection depending upon flight availability. If a second collection is required, the first collection should be stored at +4°C without agitation in a blood product refrigerator at the collection centre. If the scheduled departure time is late in the day, transplant coordinators may request the collection centre via the relevant registry to store the cells at +4°C for collection by the courier at a time suitable for flight connections.

Collection centres should wherever possible, depending on availability of equipment, provide cellular therapy products in bags:

- without spikes or access sites inserted;
- with lines heat sealed rather than clipped and of sufficient length to allow the use of a sterile connecting device to access the bag if required; and
- with at least one port available for use at the transplant centre.

## 5. COURIER TASKS DURING ASSIGNMENT

### 5.1 Arrival at the city of collection centre

On arrival at the city where the collection centre is located, the courier must contact the designated person in order to:

- confirm arrival, contact and travel details;
- deliver isothermal shells or the cooler and coolant packs (if required);
- if necessary place coolant packs inside a labelled bag in a freezer at the hotel;
- confirm the time and location for collection of the cellular therapy product;
- confirm transportation from the collection center to the airport or train station.

### 5.2 On the day of collection

On the day of collection, the courier must:

- Arrive at collection centre at arranged time and location;
- Make contact with designated contact person;
- Carry personal identification (e.g., passport) and the documentation required for the transport of cellular therapy product;
- Crosscheck with the collection centre representative, the type, number and labelling of bags containing cellular therapy products,
- The cell count and the addition of anticoagulant against the request for cellular therapy product (if required);
- Pack cellular therapy products and additional samples into the cooler according to instructions provided by the transplant centre;
- Collect and check all accompanying paperwork;
- Not add heparin, antibiotics or any other additive to the bone marrow during transportation;
- Declare the cellular therapy product on all customs/ immigration and quarantine forms for inspection as required;
- Supervise any visual inspection of the cellular therapy product.

### 5.3 Arrival at city of transplant centre

On arrival at the city where the transplant centre is located, the courier must:

- travel immediately to the transplant centre or processing laboratory according to instructions;
- contact the designated staff member at the transplant centre or processing laboratory for hand over;
- record the time of delivery and temperature of the cellular therapy product upon arrival;
- cross check the cellular therapy product and sample tubes against the details provided by the collection centre and the request cellular therapy product;
- visually inspect the bags and the cellular therapy product for anomalies such as visible clumping;
- record any events or incidents during transport;
- sign for delivery of the cellular therapy product to the transplant centre using the appropriate forms;
- alert transplant centre staff regarding documents requiring completion and return to the collection centre post-delivery and/ or post-transplant;
- report incidents or adverse events to the "first point of contact" described below.

## 6. COURIER INCIDENT MANAGEMENT

### 6.1 Introduction

The transportation of cellular therapy product by a courier is a critical step in transplantation using voluntary unrelated donors. Any incidents or deviations in transport can have a significant impact on patient outcome; this is particularly important for long distance transport. An incident is defined as an unplanned event that occurs during the transportation of cellular therapy products that results in a serious product events or adverse reactions (SPEAR)[8]. SPEARs always need to be reported and can include the following:

- Harm to donor: an adverse reaction in a donor during or after a donation procedure, including unnecessary procedures (e.g. the need to donate again due to loss of a product during transportation).
- Harm to recipient: an adverse reaction in a recipient during or after the infusion of a cell therapy product including any harm as a consequence of product quality issues, delay in delivery etc.
- Risk of harm (an adverse event): any problem or incident that could have had (but did not have) negative consequences for the donor or recipient or the system as a whole.

### 6.2 Active management

The 'first point of contact' must be clearly communicated to, and understood by, the courier in advance of travel. A courier must notify their 'first point of contact' as soon as they are aware of any incident or potential incident, although the requirement for notification should not delay resolution of the incident. Either the supplying or receiving registry or the transplant centre will be the nominated 'first point of contact'. Additional nominated organisations may need to be copied in on all correspondence.
The organisation providing the courier should perform a risk analysis to identify any potential incidents or deviations that might occur during the transportation of cellular therapy product. An incident management plan should be developed that outlines the procedures required to avoid or mitigate these risks, and to resolve any incidents if they occur.

### 6.3 Analysis and Corrective Action

Any organisation involved in transport of cellular therapy product must conduct a thorough review of all incidents using appropriate methodologies, such as root cause analysis (this includes commercial courier companies and registries) to identify the underlying causes of the incident and any systemic problems. The review of each incident should outline both the corrective actions taken either immediately or after the event to remedy the incident and preventive actions taken to prevent recurrence of the incident. All corrective and preventive actions must be followed up to ensure that changes have been effective and lead to process improvement. A Serious (Product) Event Adverse Reaction report shall be submitted to WMDA when a reportable incident occurs[8].

## References


1. WMDA International Standards Unrelated Haematopoietic Stem Cell Donor Registries (Accessed online at: https://wmda.info/storage/2024/01/2024-WMDA-Stnds_20240101-final.pdf?_gl=1*135fwwx*_up*MQ..*_ga*OTE0OTg0OTIwLjE3NzUwMjg0MjA.*_ga_9R7QBXVN3D*czE3NzUwMjg0MjAkbzEkZzEkdDE3NzUwMjg2NzIkajYwJGwwJGgw)
2. WMDA Guidelines for couriers and the transportation of cellular therapy products (Accessed online at: https://share.wmda.info/download/attachments/322174994/Guidelines%20for%20couriers%20and%20the%20transportation%20of%20cellular%20therapy%20products_2026_Final.pdf?version=1&modificationDate=1775116711088&api=v2 )
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6. Circular of Information For The Use of Cellular Therapy Products (Accessed online: https://www.aabb.org/blood-biotherapies/biotherapies/news-resources/circular-of-information-cellular-therapy)
7. FACT-JACIE International Standards for Hematopoietic Cellular Therapy Product Collection, Processing and Administration, Ninth Edition, Version 9.1 (Accessed online:https://www.ebmt.org/jacie/jacie-standards)
8. SPEAR Reporting Tool (Accessed online: https://spear.wmda.info/)


## Useful Web Links

- IATA - Home
- ISO 21973:2020 - Biotechnology — General requirements for transportation of cells for therapeutic use
- WMDA Scientific and Medical Publications & Recommendations - WMDA Public Documents – Section on Collection and Transportation
- WMDA Scientific and Medical Publications & Recommendations - WMDA Public Documents – Section on SPEARs
- Resources | WMDA Find the WMDA Forms under the first pull down menu. Forms for Transport are in a separate section. Forms related to Transport

| | |
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| T10 | Courier & emergency contact information during stem cell transportation |
| T20 | Emergency Stem Cell Storage Directions |
| T30 | Transport of Stem Cell Product Audit |
| T40 | Courier Letter |
| | Proforma Invoice |

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| T50 | |