Australian & New Zealand Society of Blood Transfusion Ltd

Transporting blood and blood products to a patient's bedside.

Health facilities and pathology providers providing transfusion services must comply with the requirements for blood and blood product transportation and storage as described in the NPAAC "Requirements for Transfusion Laboratory Practice" section 13 [1]; ANZSBT "Guidelines for Transfusion and Immunohaematology Practice", section 5 [2]; and the NSQHSS "Blood Management Standard" [3].

Institutions should have procedures and equipment available to ensure that blood and blood products are transported appropriately to a patient's bedside from the transfusion laboratory or other controlled storage in order to maintain the integrity of the product, and minimise wastage. While these procedures will vary according to the local environment, the following considerations may assist.

Fresh blood products

- Fresh blood products (red cells, platelets, thawed plasma products) should be placed in a bag or other shipping container when being transported through public or general areas within an institution. Carrying in the hand provides little protection from damage if the product is dropped and so is not generally recommended. This restriction would not apply when products are carried a very short distance, for example from controlled storage to an adjacent operating theatre.
- Bags and shippers may either be validated where the appropriate temperature is maintained for the transport period, or unvalidated, where the temperature of the product during transit is not controlled, but is usually at or close to room temperature.
- The use of unvalidated containers is appropriate when carriage time between removal from controlled storage and the site of transfusion is less than 30 minutes. This allows for fresh blood products to be returned to controlled storage if transfusion does not proceed.

1. National Pathology Accreditation Advisory Council (NPAAC). Requirements for transfusion laboratory practice. 4th Edition 2019. https://www.health.gov.au/internet/main/publishing.nsf/content/health-npaac-publication.htm

2. Australian and New Zealand Society of Blood Transfusion (ANZSBT). Guidelines for Transfusion and Immunohaematology Practice. Revised 1st edition 2020, https://anzsbt.org.au/guidelines-standards/anzsbt-guidelines/

3. National Safety and Quality Health Service (NSQHS) Standards. 2nd edition 2017. https://www.safetyandquality.gov.au/publications-and-resources/resource-library/national-safety-and-quality-health-service-standards-second-edition

- If it is anticipated that the time out of controlled storage exceeds 30 minutes, then a validated container should be used for transporting the blood product.
- Validated containers are recommended when products are required at a patient's bedside for an extended period, for example during a massive transfusion.
- Validated containers should display the packing time and contact details of the laboratory, and instructions to follow if the container is opened and product not used.
- Bags and containers may be single use or reusable. Single use bags, discarded at the bedside, are recommended when infection control is a consideration. It is recommended that reusable bags or containers be dedicated for the transport of blood products and not used for other transport (particularly transport of pathology specimens). Containers should be able to be cleaned or discarded if contamination occurs.
- When infection control measures are in place fresh blood products may be provided in a sealed plastic bag which allows for labelling to be checked and confirmed prior to transfusion. In the event the product is required to be returned to the laboratory the outer bag may be wiped prior to transport. NOTE: The use of a sealed bag should be limited to immediate transport. Blood products must not be stored in such packaging.
- When transporting fresh blood products in a pneumatic tube system, placing the blood product in a bag within the tube canister will minimise contamination risk in the event of product damage.

Manufactured blood products

- Manufactured blood products should be transported in a way that allows appropriate storage conditions to be maintained in the event that product is returned to the laboratory.
- When multiple vials or bottles are despatched at one time, the use of an appropriate container or bag is recommended to reduce the risk of product being dropped and damaged. The combined weight of the products should be assessed when determining an appropriate container.
- When a pneumatic tube system is in use, clear guidelines should be available if particular products cannot be transported within the system, and appropriate alternative transport provided.