

THE TIME INTERVAL BETWEEN REMOVAL OF BLOOD AND BLOOD COMPONENTS FROM STORAGE AND SUBSEQUENT INFUSION

REASON FOR ISSUE: Update for changes to storage of thawed plasma components.

1. PURPOSE

To ensure that blood components are handled after issue from the Blood Bank, in such a manner as to ensure a safe transfusion, while minimising wastage.

2. SCOPE

The term “blood component” includes red cell components, plasma components and platelet components.

3. ALL BLOOD COMPONENTS

- Transfusion of all blood components should be started as soon as possible after issue from the Blood Bank (or removal from a designated and controlled blood refrigerator or validated transport container). The transfusion should be completed promptly, within the clinical constraints of the patient’s clinical status.
- If a short delay occurs (or is anticipated) before starting a transfusion, the component may be held at ambient temperature at the patient’s bedside, provided the transfusion can be completed within the total allowed time.
- Under no circumstances may any blood component be placed into any refrigerator other than a designated and controlled Blood refrigerator.
- Blood components returned unused to Blood Bank which have been stored and handled appropriately and meet Blood Bank quality checks will normally be accepted back into stock and may be reused. Acceptance into stock or disposal of the blood components will be conditional on evidence of suitable storage. If there is any doubt as to the suitability of returned blood components (for example where appropriate storage conditions or handling cannot be guaranteed) then they will be discarded. The requesting location will usually be charged for these discarded blood components.

4. RED CELL COMPONENTS

- Transfusions of red cell components should be completed within 4 hours of the time of issue from the Blood Bank or removal from controlled refrigeration.
- If transfusion cannot be started within 30 minutes, the red cell component should be returned without delay to Blood Bank (or to the designated and controlled blood refrigerator) for safe storage. (This is termed “the 30 minute Rule”.)
- Commencement of a red cell transfusion after 30 minutes may be acceptable provided the red cell component has been stored at ambient temperature at the patient’s bedside and the transfusion can be completed within the total allowable time of 4 hours.
- If a red cell component has been out of controlled storage for more than 30 minutes and there is no prospect of imminent transfusion it should be returned to Blood Bank, for safe disposal and to ensure the transfusion record is accurate.

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5. THAWED FRESH FROZEN PLASMA COMPONENTS

(Plasma Fresh Frozen, Plasma Fresh Frozen Neonatal, Plasma Cryodepleted)

- Transfusions of thawed Fresh Frozen Plasma should be completed within 4 hours of issue or removal from controlled refrigeration.
- If transfusion cannot be started within 30 minutes, the thawed Fresh Frozen Plasma should be returned without delay to Blood Bank for safe storage. (i.e. “the 30 minute Rule” applies.) Thawed Fresh Frozen Plasma components may be stored in a designated and controlled Blood refrigerator outside of Blood Bank only if the following requirements are met:
 - The refrigerator fully complies with NZBS requirements for a Blood refrigerator.
 - There is clear and documented evidence of the time the thawed Fresh Frozen Plasma was issued from the Blood Bank, the time the component entered the Blood refrigerator, and the time it was removed.
 - The component is never outside of controlled storage for more than 30 minutes, as evidenced by the documented times.
- If a thawed Fresh Frozen Plasma component has been out of controlled storage for more than 30 minutes and there is no prospect of imminent transfusion, it should be returned to Blood Bank, for safe disposal and to ensure the transfusion record is accurate.

6. CRYOPRECIPITATE

- Transfusions of cryoprecipitate should be completed within 4 hours of thawing.
- If transfusion cannot be started within 30 minutes, the cryoprecipitate should be returned without delay to Blood Bank for safe storage at a controlled Room Temperature until its expiry, 4 hours from thawing.
- If cryoprecipitate has been out of controlled storage for more than 30 minutes and there is no prospect of imminent transfusion it should be returned to Blood Bank, for safe disposal and to ensure the transfusion record is accurate.
- Once thawed, cryoprecipitate must not be refrozen.

7. PLATELET COMPONENTS

- Platelets must not be refrigerated.
- Transfusions of platelet components should be completed within 1 hour of issue.
- If transfusion cannot be started promptly, the platelets should be returned to Blood Bank within 1 hour of issue, for safe storage.
- If a platelet component has been out of controlled storage for more than 1 hour and there is no prospect of imminent transfusion it should be returned to Blood Bank. Acceptance into stock or disposal of the platelets will be conditional on evidence of suitable storage.

8. REFERENCES

- [136P102](#) Fresh Frozen Plasma
- [112P006](#) Specifications for Blood Components