



Government of Newfoundland and Labrador  
Department of Health and Community Services  
Provincial Blood Coordinating Program

<b>EMERGENCY ISSUE OF BLOOD COMPONENTS</b>	<b>NLBCP-031</b>
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## Overview

Clinical situations may arise in which transfusion of blood components must be initiated before pre-transfusion testing is complete. This policy describes the pre-transfusion process, selection and issuing of blood components when circumstances do not allow for testing to be complete prior to issue.

## Policy

All NL Health Services (NLHS) facilities shall develop and implement a policy for the release of blood components prior to the completion of pre-transfusion testing that complies with NL Provincial Blood Coordinating Program (NLPBCP) policy.

1. Prior to the release of uncrossmatched red blood cells (RBCs), the ABO group of the donor red cells shall be confirmed.
2. In an emergency or a life-threatening situation RBCs for which pre-transfusion testing has not been completed shall be released from the Transfusion Medicine Laboratory (TML) with documented approval of the recipient's authorized prescriber/physician.
3. When there is insufficient time to complete the ABO and Rh(D) group of the recipient, a sample cannot be obtained, or the identification of the recipient is not known group O RBCs shall be issued. If plasma is required, group AB plasma should be issued.
4. As soon as possible a sample shall be obtained, the ABO and Rh(D) group of the recipient shall be determined, and patient switched to group specific RBCs before group O inventory is unnecessarily depleted. Two determinations of blood group are required.
5. Group O Rh(D) negative RBCs should be issued for females 45 years and under with child-bearing potential. In a situation when O Rh(D) negative RBCs are being exhausted, a discussion should be made to switch to O Rh(D) positive.
6. Transfusion records shall include a signed declaration by the authorized prescriber/physician confirming that the clinical situation justifies releasing RBCs before completion of pre-transfusion testing
7. The label/tag attached to the emergency issued component shall indicate that testing is incomplete. This information shall be documented in the recipient's medical record.
8. Compatibility testing shall be completed promptly and if a RBC unit subsequently proves incompatible, the attending physician/prescriber shall be informed.

## Guidelines

1. If the identification (name and HCN ) of the recipient is known, perform a blood bank history check to determine if the recipient has any known RBC antibodies or special transfusion requirements.
  - 1.1. Computer records cannot be used for historical group specific unless the patient meets the requirements of two determinations.
2. Request a blood sample before emergency issuing blood components. Keep a segment from RBC units to perform compatibility testing.
3. ABO group-specific or ABO group-compatible RBCs may be issued prior to completion of other tests for compatibility if the recipient's ABO group has been determined by the transfusing facility and meets the requirements of two determinations of the recipient's blood group on record.
4. If the blood bank history is known and the patient has known antibodies, supply phenotypically matched units negative for the antigen(s) to the antibody/antibodies in the patient's history.
  - 4.1. For a neonate use the blood bank history from the mother for antibodies.
5. Rh(D) positive recipients may receive Rh(D) positive and Rh(D) negative blood components.
6. For blood component substitutions see [Blood Component Substitutions in Adults](#).
7. Hospital inventory, best inventory practises and patient safety shall be considered when making evidence-based, emergency issue decisions. See also [Appropriate Utilization of O Negative Red Blood Cells](#)

## Quality Control

1. Emergency issued blood components are **only** released in life threatening situations and with the documented approval of the recipient's authorized prescriber/physician.
2. An 'Uncrossmatched Blood' label/tag is attached to the RBCs and the units are listed on an issue form stating pretransfusion testing is incomplete and visual inspection is acceptable.

## Key Words

Emergency, issue, blood, uncrossmatched

## References

Canadian Society for Transfusion Medicine. (2022). *Standards for hospital transfusion services*. (Version 5 revised). Markham, ON: Author.

Canadian Standards Association. (2020). *Blood and blood components*, Z902-20. Mississauga ON: Author.