



Government of Newfoundland and Labrador

Department of Health and Community Services  
Provincial Blood Coordinating Program

<b>SATELLITE STORAGE, TEMPERATURE MONITORING AND ALARM CHECKS</b>	<b>NLBPCP-045</b>
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## Overview

Red blood cells may be stored outside the Transfusion Medicine Laboratory in satellite refrigerators which meet standards and regulations. Staff in the areas where satellite refrigerators are located are required to follow policies and procedures that meet standards and regulations for storage of blood components and blood products.

## Policy

1. A policy shall be established for the safe storage of blood components and blood products that complies with Provincial Blood Coordinating Program policy.
2. Procedures shall be established to define alternate storage arrangements when equipment for storing blood components and blood products is malfunctioning or defective.
3. Satellite storage refrigerators used for storage of red blood cells shall be maintained at a temperature between 1–6 °C throughout the refrigerator cabinet.
4. To ensure that the required storage temperature is maintained, the temperature in component storage equipment and open storage areas shall be either:
  - 4.1. Continuously monitored and recorded using a validated continuous monitoring system; or
  - 4.2. Manually checked and recorded every four hours if an automated system is not available.

NOTE: Continuously monitoring chart shall be checked daily to ensure it is recording properly and at proper temperature.

5. There shall be a daily review of the temperature monitoring systems to ensure they are operating correctly.
  - 5.1. When a daily visual check is not possible, the laboratory shall implement a process to ensure the storage device has maintained an appropriate temperature between visual checks.
6. Blood components shall be stored in clearly identified segregated areas within storage equipment to avoid possible contamination.
7. Removal of blood components and/or blood products from controlled temperature satellite storage shall be documented to ensure viability of the component and/or product is maintained.

## Quality Control

1. Written procedures shall be in place which contain directions on how to maintain blood components within permissible temperature ranges during a power failure or other disruption of refrigeration or environmental controls readily available.
2. Equipment used for blood component and blood product storage shall be connected to an emergency power supply. The power supply system shall be checked at defined intervals to ensure an immediate switch to emergency power.
3. Satellite storage refrigerators shall have alarm systems with audible signals. Alarm activation points shall be set at temperatures that allow time for appropriate corrective action before the blood components reach unacceptable temperatures. The alarm warning shall signal in a location that is continually monitored or staffed so corrective action can be taken immediately.
4. All thermometers used in storage devices for blood components and blood products shall be checked against a certified calibrated thermometer at least annually, and the check shall be documented.

## Key Words

Temperature, satellite storage, alarm

## References

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