

Beaumont

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Applicability Dearborn, FH, Troy

Shipping Container Temperature Monitoring-Blood Bank

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

This document will provide policy and procedure for the temperature monitoring of the shipping containers between the hospitals.

II. INTRODUCTION:

Beaumont Health transports blood components between hospitals. All containers used to transport blood components have been qualified by the blood suppliers before use to ensure that the proper component transport temperature is maintained. The temperature of the boxes used to ship red blood cells, thawed plasma and platelets following shipment is monitored quarterly to determine if these products are properly packed to maintain the red blood cell or platelet temperature within acceptable range.

III. POLICY:

- A. This monitor should be completed quarterly for each site blood products are sent to and for each product the site receives.
- B. Whole blood, red blood cells, and thawed plasma products must be transported at a temperature of 1° to 10°C.
- C. Platelets, thawed cryoprecipitate, and granulocytes must be transported at a temperature of 20° to 24°C.
- D. This temperature monitor may be performed during the normal transfer of blood products between sites. If there are no blood products to transfer when the monitor is due, it is acceptable to place expired blood products in the shipping box. The face labels of expired products must be clearly defaced /marked to indicate that they are expired and not intended for transfusion.

IV. DEFINITIONS:

- A. Containers: supplier blood component boxes
- B. Quarterly: within the calendar months of January, April, July and October
- C. NIST: National Institute of Standards and Technology

V. EQUIPMENT:

- A. NIST Calibrated Thermometer

VI. SUPPLIES:

- A. Wet ice
- B. Red blood cell unit or platelet unit (may be expired)
- C. Blood and platelet shipping boxes
- D. Room temperature gel packs
- E. Insulated platelet envelopes

VII. PROCEDURE:

A. Red Blood Cells

1. Pack units to be transferred per standard operating procedures and add a thermometer to the inside of the shipping box.
2. Fill out the top portion of the *Shipping Container Temperature Monitor Form*, insert form into the shipping box and seal.
3. Call and instruct the receiving hospital to fill out the bottom portion of the *Shipping Container Temperature Monitor Form*, and return the completed form, container and the thermometer as soon as possible.
4. Upon receipt, review the completed form to see the temperature was between 1° and 10°C.
5. Submit completed form to the supervisor or designee for review.

B. Platelets

1. Pack units to be transferred per standard operating procedures and add a thermometer to the inside of the shipping box.
2. Fill out the top portion of the *Shipping Container Monitor Form*, insert form into the shipping box and seal.
3. Call and instruct the receiving hospital to fill out the bottom portion of the *Shipping Container Temperature Monitor Form*, and return the completed form and the thermometer as soon as possible.
4. Upon receipt, review the completed form to see the temperature was between 20° and 24°C.
5. Submit completed form to the supervisor or designee for review.

VIII. EXPECTED VALUES:

Red blood cell boxes are to remain between 1° and 10°C. Platelet boxes are to remain between 20° and 24°C.

IX. REFERENCES:

1. AABB, *Technical Manual*; current edition.
2. AABB, *Standards for Blood Banks and Transfusion Services*, current edition
3. College of American Pathologists, *Transfusion Medicine Checklist*, current edition.

Attachments

Shipping Temperature Monitor Form

Approval Signatures

Step Description	Approver	Date
	Vaishali Pansare: Chief, Pathology	5/6/2022
	Jeremy Powers: Chief, Pathology	4/22/2022
	John Pui: Chief, Pathology	4/22/2022
	Ryan Johnson: OUWB Clinical Faculty	4/22/2022
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Policy and Forms Steering Committee (if needed)	Gail Juleff: Project Mgr Policy	4/21/2022
Policy and Forms Steering Committee (if needed)	Kelly Sartor: Supv, Laboratory	4/21/2022
	Karrie Torgerson: Supv, Laboratory	4/21/2022
	Teresa Lovins: Supv, Laboratory	4/21/2022
	Kelly Sartor: Supv, Laboratory	4/21/2022

COPY

Shipping Container Temperature Monitoring Form

Shipping Hospital: _____

Date: _____

Blood Product (Circle One):

Time Packed: _____

Red Blood Cells

Platelets

Packed by: _____

Thermometer Serial #: _____

Temperature from thermometer: _____ (Bring ice bag to 1° to 6°C before packing the shipping box)

Receiving Hospital: _____

Department: _____

Date: _____

Time: _____

Receiving Technologist: _____

Temperature (Circle One)

Temperature from Thermometer: _____ Acceptable Unacceptable

RBC range is 1° to 10°C

Platelet range is 20°C to 24°C

Please return this completed form, blood box, and thermometer to the Shipping Hospital Blood Bank.

Return this completed form, blood box and thermometer to the Shipping Hospital Blood Bank.

Reviewed by: _____ Date: _____

Acceptable (√) _____ Unacceptable (√) _____ Variance # _____