



BBMBT 2.0-Transport of Blood Product in Blood Bank Transporters

A. Principle

There may be instances when multiple units of packed red blood cells or thawed plasma are required to be at a patient's bedside. These may include, but are not limited to: cardiac surgeries, difficult cesarean sections or multiple traumas. Blood products must be maintained at appropriate temperatures while in the transport container.

B. General Policies

1. Valid locations to receive transporters include: operating rooms including labor and delivery, OR suites, emergency department and ICU cardiac patients.
2. Urgency of need will be determined to evaluate delivery of blood in transporter vs. pneumatic tube system.
3. The following information must be found on all transporters:
 - a. Patient information to include, at minimum, name and medical record number.
 - b. Expiration time
 - c. Transporter number
 - d. Instructions to "Keep Lid Closed"
 - e. Biohazard label
 - f. Blood bank extension
4. Transporters may contain products for only one (1) patient.
 - a. Small transporters may contain a maximum of 2 products.
 - b. Medium transporters may contain a maximum of 4 products.
 - c. Large blue coolers may contain a maximum of 8 products.
5. The transporter's purpose is to maintain temperature at 1-10C, therefore NO room temperature products should be placed in the blood bank transporters.
 - a. All packed red blood cells must have Timestrip® attached prior to placing in the transporter.
6. The transporter must be returned to the blood bank within ten (10) hours of issue.
 - a. If the need for blood products remains, prepare a new transporter, issue fresh units and return the units in the current transporter.

C. Specimen Collection and Preparation

N/A



D. Equipment

1. Blood Transporter Cooler
2. Coolant insert

E. Supplies

1. Genesis Timestrip® Blood Temp 10 strips

F. Reagents

N/A

G. Quality Control

Quality control will be performed on all blood bank transporters annually.

H. Safety

Refer to Chemical Hygiene and Blood Borne Pathogen Plan for Memorial Hospital Laboratory.

I. Procedure

1. Patient care area will notify blood bank of the need for blood products in transporter.
 - a. See SOP *BBERTRXN 1.0 v1-Massive Transfusion Protocol (MTP)* for instructions regarding MTP process and transporter use for that procedure only.
 - i. For the MTP process, skip to step 3 if using the small or medium transporters.
 - ii. For the MTP process, skip to step 4 if using the large blue cooler transporter.
2. Verify whether patient care area has computer access and can/has ordered products in LIS and number and type of products needed in transporter.
 - a. If patient care area has access, make sure they order products and proceed to step 3.
 - b. OR does not have access to computer in surgery suites.
 - c. Products will have to be ordered by blood bank staff and issued without a product delivery order.
3. If using the small or medium transporter, prepare the Golden Hour coolant insert for use in the small or medium transporters
 - a. Ensure that the coolant container has been in the freezer for a minimum of eight (8) hours.
 - b. Fill the container with 36-38C water to a level that the lid does not touch.
 - c. Place the lid on the container and allow to sit for five (5) minutes.
 - d. Remove the water from the coolant container.
 - e. Place coolant container inside blood transporter cooler.
 - f. Continue to step 5.



4. If using the large blue cooler transporter, prepare the TICS coolant inserts for use.
 - a. Retrieve a group of six (6) TIC coolant inserts from -20°C freezer.
 - b. Ensure that all inserts are marked with the same number (1-5).
 - c. Ensure that the group of inserts have been in the freezer for at least 12 hours by checking the blue card attached.
 - d. Submerge all six (6) inserts in the 37°C water bath at the same time for one (1) minute.
 - e. Immediately remove all six (6) inserts after one (1) minute has passed and dry off.
 - f. Place all six (6) inserts in the large blue cooler. (See Appendix A for reference)
5. Set one timer for 10 hours and one for 9.5 hours and start both timers.
 - a. Print two screenshots of patient's history record.
 - b. Attach "Return by" sticker somewhere on patient's screenshot.
 - c. Note time that insert is ready and add 10 hours. Record that expiration date and time on the "Return by" sticker on patient's screenshot.
 - d. If performing MTP process, return to SOP *BBERTRXN 1.0-Massive Transfusion Protocol (MTP)* for continued instructions.
6. Issue units in the hospital computer system according to SOP *BBBP 9.0-Issue and Transport of Blood and Blood Products*
 - a. Document initials of tech performing second check on the issue/transfusion document in the absence of delivery order.
7. Place blood products in coolant container and issue/transfusion documents on top of coolant container inside blood transporter cooler.
 - a. Ensure a Timestrip® has been placed on all packed red blood cells prior to placing in transporter. (Refer to SOP *BBMBT 1.0-Use of Genesis Timestrip® Blood Temp 10*)
 - b. Ensure only red blood cell products and thawed plasma products are placed in transporter.
 - c. Platelet and cryoprecipitate products should not be placed in cooler at any time and should only be transported at room temperature.
8. Place segments of issued units, screen shot of patient's history record and timers on processing counter. (Usually placed in rack for ease of access).
9. Place printed patient screen shot, with "Return by" sticker attached, in plastic sleeve on transporter lid.
 - a. Screen shot must include, at minimum, patient name and medical record number.
10. Contact patient care area, that is requesting transporter, and notify them that transporter is ready.
 - a. Surgery will send a runner until 1630 to pick up transporters from the blood bank window. Transporters will also be returned by runner until 1630.



- b. After hours, blood bank staff will be met by surgery staff in PACU to receive the transporter.
 - c. ICU will send a ward clerk or other staff to pick up and return transporters.
- 11. Compare printed information presented for pick up to printed information located on transporter.
 - a. If all information is correct, hand the transporter to the individual receiving products.
- 12. Thirty (30) minutes prior to expiration, blood bank will contact patient care area with a reminder to return transporter.
 - a. Inquire as to the need for blood to remain at patient's bedside, if necessary.
- 13. When transporter is returned:
 - a. If red blood cell products remain, ensure Timestrip® is acceptable.
 - b. Return red blood products in the hospital computer system according to SOP *BBBP 11.0-Returning Issued Blood and Blood Products to the Blood Bank*
 - c. Discard plasma products, if applicable.
 - d. Remove the coolant container, wipe the coolant and the transporter with a disinfectant cloth and allow to dry.
 - e. Complete the coolant flag to include date and time and initials, place inside coolant container and place into -30C freezer.

J. Limitations

- 1. If any need is truly emergent and the transport by OR/ER/ICU staff cannot be arranged, blood bank staff will deliver the transporter.

K. Reporting Results

N/A

L. References

- 1. Standards for Blood Banks and Transfusion Services; Current Edition;; AABB, Bethesda, MD.
- 2. Technical Manual;16th Edition; pg. 284, 297; 2008; AABB, Bethesda, MD.
- 3. <http://www.mnthermalscience.com/>

APPENDIX A

Types of Coolers and Inserts

Golden hour small and medium transporters and insert (Medium is just taller)



Large blue cooler with TIC coolant inserts





The TICS coolant inserts are arranged in the cooler as you see in the illustration above. In the cooler, the shorter two inserts go on the right and left sides in the cooler.



PROCEDURE AND FORM CHANGE CONTROL

Title: BBMBT 2.0-Transport of Blood Product in Blood Bank Transporters										
Written		Validated		Path Review		Review		Effective		Reason for Revision
Date	By	Date	By	Date	By	Date	By	Date	By	
7/11/11	PAB	7/19/11	KMS	7/20/11	ESB			8/1/11	PAB	Combined procedure and policy Revised transporter issuing
Revised										
7/17/12	PAB			7/19/12	ESB			7/23/12	PAB	Revised expiration date based on annual QC
7/25/13	PAB			7/26/13	ESB			8/1/13	PAB	Remove "use first" reference
						6/20/14	PAB			
2/5/15	JLH							2/6/15	JLH	Changed Hemotemp to Timestrip. Added Document control numbers. Changed wording to reflect actual procedure and workflow. Less vague.
4/15/15	JLH									Changes made to accommodate new coolers and MTP process.

Location of any copy(s) of the procedure:

Out of use:

Date: _____ By: _____ Reason: _____