

Beaumont

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Applicability **Royal Oak**

Inventory of Reagents and Critical Materials - Royal Oak Blood Bank

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

The purpose of this document is to provide policies and procedures that will enable the Blood Bank to maintain an acceptable inventory of reagents and critical materials.

II. INTRODUCTION:

- A. The Blood Bank must comply with several regulatory requirements relating to the inventory and receipt of reagents and critical materials. The intent of these requirements is for new reagents to be checked by an appropriate method and for the results to be recorded before being placed in service. For example, all new lots of reagents and critical materials must be inspected and tested, as applicable, before use, with documentation of acceptance. In addition, the Blood Bank must maintain an appropriate inventory control system to track the use of all lot numbers of critical materials received. Tracking must include the dates received, placed into use, discarded, or returned to the supplier. The policies and procedures in this document and in Transfusion Medicine policy, [Receipt of Critical Blood Bank Reagents and Materials](#) verify that the Blood Bank is complying with these requirements.
- B. Some reagents and critical supplies are on standing orders from the suppliers, while others are ordered as needed. Various forms are used to monitor the inventory. Any employee can record the inventory of reagents and supplies using these forms, but a Medical Technologist (MT) or Medical Technologist Lead (MT Lead) must be the one who decides the quantity to order. The MT/MT Lead will need to keep in mind that ordering one of something every other week or once a month is not cost effective. Ordering in larger quantities may decrease the cost of shipping and the total cost of manufacturing the product which in turn decreases our cost

from the company.

III. DEFINITIONS:

- A. **Critical Material:** A good or supply used in the collection, preservation, storage, preparation, or testing of blood components that directly affects quality or patient safety.
- B. **Daily:** On a given calendar date.
- C. **Bimonthly:** Within the first and third weeks of the month \pm 7 days.
- D. **Monthly:** Within the first two weeks of each calendar month.
- E. **Quarterly:** Within the calendar months of January, April, July, and October.
- F. **Yearly:** Within a 12 month \pm 1 month time span.
- G. **End of Use:** The act of eliminating a product or reagent from active inventory in the computer system.
- H. **Receipt Traveler:** A Beaumont document that is brought to the Blood Bank by the delivery personnel, usually includes price and quantity.
- I. **Invoice:** The itemized document for Blood Bank reagents or supplies that is provided by the supplier, includes quantities and sometimes includes prices.
- J. **Delivery:** The process of accepting a shipment into the laboratory, confirming location and number of boxes.
- K. **Receipt:** The process of visually inspecting the products and confirming product type and quantity.

IV. FORMS:

- A. The directions to complete the following forms are located within the *Procedure* section of this document. The Reagent Inventory Binder is located near the crossmatch assist station. Copies of the forms listed below are located in the location specified below.

Form Name	Location	Frequency Used
<i>Monthly Inventory Order Log</i>	Inventory Binder	Monthly
<i>Bimonthly Inventory Order Log</i>	Inventory Binder	Bimonthly
<i>Frozen/Washed/Deglyced Inventory Order Log</i>	Inventory Binder	Bimonthly
<i>Equipment and Miscellaneous Orders</i>	Inventory Binder	As Needed
<i>Reagent and Critical Materials Discard Log</i>	Inventory Binder	As Needed
<i>Borrowed Reagents and Critical Materials Log</i>	Inventory Binder	As Needed

V. QUALITY CONTROL (QC):

- A. See Transfusion Medicine policy, [Receipt of Critical Blood Bank Reagents and Materials](#).

VI. PROCEDURE:

- A. Three main inventory logs have been established for inventory monitoring purposes:
 1. The *Monthly Inventory Order Log* involves supplies that only need to be assessed once a month.
 2. The *Bimonthly Inventory Order Log* involves more critical inventory that will be assessed twice a month.
 3. The *Frozen/Washed/Deglyced Inventory Order Log* involves unit processing supplies that will be assessed twice a month.

A. Monthly Inventory Order Log

1. The *Monthly Inventory Order Log* is located in the inventory binder by the crossmatch assist bench. It will be assessed once a month.
2. At the top of the form write the current month and year in the space provided.
3. An employee will date and initial the quantity column's heading and then record the amount of each supply available.
4. The MT/MT Lead will assess what needs to be ordered and the quantity that is needed. Once orders have been placed, the order column heading is initialed and dated by a MT/MT Lead.

B. Bimonthly Inventory Order Log

1. The *Bimonthly Inventory Order Log* is located in the inventory binder by the crossmatch assist bench. It will be assessed bimonthly, preferably in the first and third weeks of the month.
2. At the top of the form, write the current month and year in the space provided, if not already performed.
3. An employee will date and initial the quantity column's heading and then record the amount of each supply available, as well as the oldest expiration date (if applicable).
4. The MT/MT Lead will assess what needs to be ordered and the quantity that is needed. Once orders have been placed, the order column heading is initialed and dated by a MT/MT Lead.

C. Frozen/Washed/Deglyced Inventory Order Log

1. The *Frozen/Washed/Deglyced Inventory Log* is located in the inventory binder by the crossmatch assist bench. It will be assessed twice a month.
2. At the top of the form write the current month and year under the title, if not already performed.
3. An employee will date and initial the quantity column's heading and then record the amount of each supply available, the oldest expiration date (if applicable), and "S" for satisfactory and "U" for unsatisfactory in the visual inspection column.
4. The MT/MT Lead will assess what needs to be ordered and the quantity that is needed. Once orders have been placed, the order column heading is initialed and dated by a MT/MT Lead.

D. Equipment and Miscellaneous Orders

1. The *Equipment and Miscellaneous Orders* form is located in the inventory binder by the crossmatch assist bench. It will be used on an as needed basis. The current year will be recorded at the top of the page in the space provided, if not already performed.
2. This list contains supplies and equipment that rarely need to be ordered. When an item is ordered the quantity ordered will be recorded along with the ordering person's initials and date. If an item is not found on the list it will be hand written at the bottom of the page in the extra rows provided.

E. Delivery and Receipt of a Reagent or Critical Material

1. When a shipment has been delivered into the Blood Bank, the person accepting the shipment is responsible for verifying the delivery location, the number of boxes, and will initial and date / time stamp the receipt traveler. If a receipt traveler is not available, it is acceptable to initial and date / time stamp the invoice.
2. When time permits, an employee will receive the products. The invoice and receipt traveler will be compared for product description and quantity with the product itself. Document and initial the invoice and/or receipt traveler if the quantity is correct. If the quantities do not match notify a MT Lead. The employee receiving the product is responsible for the visual inspection including:
 - a. Product description
 - b. Quantity
 - c. Verification that the product has not been damaged
3. If the product is a reagent or used for testing, see Transfusion Medicine policy, [Receipt of Critical Blood Bank Reagents and Materials](#) for additional steps to perform.
4. After the products have been received, the invoice and receipt traveler will be submitted to the Blood Bank clerk. A clerk will then review the receipt traveler and invoice, to verify all quantities match.

F. Ordering Products

1. After inventory is taken and the number of items that need to be ordered is established, an employee with computer access to Financials/Supply Chain Management will order the products online. The Bookshelf on the Intranet can be used as reference when ordering products in the Financials/Supply Chain Management.

G. Managing Pending / In-Process Orders

1. Pending / in-process orders can be observed and managed using the "eProcurement / Managing Requisitions" function of Financials/Supply Chain Management. Approval status, purchase order information, and the overall requisition cycle can be viewed using this function. Refer to the Bookshelf on the Intranet for additional reference.

H. Inventory Control Supplies

1. Every week someone from Inventory Control will come take inventory of the items in the storeroom with barcodes associated with their location. There is a preset list kept by the stores personnel of those supplies and the minimum quantity needed. If additional supplies are needed, the stores personnel should be contacted and notified.

I. Reagent and Critical Materials Discard Log

1. Tracking must be performed to adequately control inventory. This includes the discarding of reagents and critical materials. When discarding a reagent or critical material that hasn't been used or is unsuitable for use for any reason (i.e. failed QC, broken container, etc.), it must be documented on the *Reagent and Critical Materials Discard Log*. This form is located in the inventory binder by the crossmatch assist bench.
2. A quarantine box will be provided and appropriately labeled to store supplies that are unsuitable for use (such as reagents that fail visual QC or are expired) in the walk-in refrigerator. A MT/MT Lead will take the reagent vials or critical supply out of the quarantine box and record the date and their initials along with the lot number, product description, expiration date, quantity being discarded, and reason for discarding on the *Reagent and Critical Materials Discard Log*.
3. After the form has been documented correctly, the reagent or material can then be physically discarded or used for educational purposes. If the reagent will be used for educational purposes it will be clearly labeled for such, or placed in the educator's fridge in the student laboratory.

J. Borrowed Reagents and Critical Materials

1. From time to time a situation may arise when a reagent or critical material is critically low and may be exhausted before the next shipment comes in. It may be deemed necessary to borrow from another institution. It is always good practice to call Beaumont affiliated laboratories before turning to non-Beaumont affiliated laboratories.
2. After finding an institution that will allow us to borrow from them, we must record the information on the *Borrowed Reagents and Critical Materials Log*. Fill out all of the columns, except for the last one which will be documented when the borrowed reagent is replaced. This form is located in the inventory binder at the crossmatch assist bench.
3. On occasion another institution may have to borrow a reagent or critical material. Before lending to other institutions an adequate supply level must be verified. The loaning out of this reagent must be documented on the *Borrowed Reagents and Critical Materials Log*.
4. When a reagent or critical material has been received from another institution to replace what was previously borrowed, initial, date, and document the quantity replaced in the last column of the *Borrowed Reagents and Critical Materials Log*. This form will be monitored monthly to verify that borrowed reagents and critical materials were replaced. If a replacement has not been sent within 1 month, a MT Lead must be notified.

K. Monthly and Bimonthly Job Duties

1. Monthly Duties:

- a. A MT will display a list of all inventory expiring within the next 30 days. The MT will then evaluate the reagents and critical materials to consider if a new lot number needs to be ordered.
- b. A MT will review all reagents and critical materials to establish the items that need to be documented as "End of Use" in SoftBank.
 - i. Keep in mind that a reagent may have the same lot number, but a different receipt date. SoftBank will view these reagents as different. For example, Anti-A with the lot number AAA123 was received on 12/15/2012 and 02/01/2013. SoftBank will display the reagent as 2 individual sets of reagents. Once we have exhausted all of the AAA123 received on 12/15/2012 and only the 02/01/2013 receipt date is left, the 12/15/2012 lot number should be documented as "End of Use".

2. Bimonthly Duties:

- a. A MT will display a list of all active expired reagents and critical materials. If an expired reagent or critical material displays:
 - i. The MT will search for any vials/boxes/cases that may still be in the general inventory and remove them.
 - ii. The MT will document "End of Use" for the product in the computer system.
- b. A MT will review the *Reagent Receipt Log* and compare the received reagents with both the Immucor and Ortho standing order lists provided by the manufacturer. If any reagents have not been received within the same week of the shipped out date the MT Lead must be notified.

VII. REFERENCES:

1. College of American Pathologists, *Transfusion Medicine Checklist*, current edition.

Attachments

[BiMonthly Inventory Order Log](#)

[Borrowed Reagents And Critical Materials Log](#)

[Equipment And Miscellaneous Orders](#)

[Frozen Washed Deglyced Inventory Order Log](#)

[Monthly Inventory Order Log](#)

Approval Signatures

Step Description	Approver	Date
Policy and Forms Steering Committee (if needed)	Ann Marie Blenc: System Med Dir, Hematopath	7/7/2023
	Kristina Davis: Staff Physician	7/7/2023
	Brooke Klapatch: Medical Technologist Lead	5/11/2023
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	Brooke Klapatch: Medical Technologist Lead	5/10/2023

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