Status **Scheduled** PolicyStat ID **11874839**

Beaumont

Origination	6/29/2022
Last Approved	6/14/2022
Effective	6/29/2022
Last Revised	6/14/2022
Next Review	6/13/2024

Document Contact	Kelly Sartor
Area	Laboratory-Blood Bank
Applicability	Dearborn

Blood Bank Emergency Management Plan - Dearborn

Document Type: Plan

I. PURPOSE AND OBJECTIVE:

This document will provide the Blood Bank staff with guidance during instances of internal/external disaster, emergencies, or disruptions within the facility whereby normal operations may not be available and/or the patient population may see a sudden increase.

II. SCOPE:

A. The scope of this document relates to the management of emergency situations throughout Beaumont Health Dearborn campus, as well as sytem/utility disruptions that are specific to the Blood Bank.

B. For specific information relating to the Blood Bank's response to a mass casualty incident (MCI), refer to Transfusion Medicine Policy, Blood Bank Mass Casualty Plan - Dearborn

III. DEFINITIONS & ACRONYMS:

A. **Designee:** A Lead Medical Technologist Lead or other laboratory management staff.

B. **Emergency Operations Center (EOC):** The physical location where the Incident Commander and Command staff coordinate all activities related to the emergency incident.

IV. POLICIES:

A. Beaumont Emergency Response Quick Reference Guide

1. This guide is used to provide information relating to each of the Beaumont Hospital emergency codes. Information provided includes the definition of the emergency, how employees will be notified of the emergency, and the correct actions to take for each situation.
2. The Quick Reference Guide can be found in the Blood Bank in two locations, near the main department entrance and near the Ortho Visions. It is the responsibility of each Blood Bank employee to be familiar with the information contained in this guide.

B. Use of Employee Call List

1. If it is determined by the Blood Bank Supervisor and/or designee that additional staffing is required during an emergency situation, the Employee Contact List should be utilized to call in more staff. The Employee Call List is located on the bulletin board adjacent to the blood irradiator.

C. Hospital Incident Command System (HICS) and Emergency Operations Center (EOC)

1. In some emergency situations, Beaumont Dearborn will establish a Hospital Incident Command System (HICS). This management model is designed to provide a coordinated response for all types and situations of varying magnitudes. When this is done, the Blood Bank needs to be prepared to report blood and component inventory. The Blood Bank Supervisor, designee, or medical technologist will report to the Emergency Operations Center (EOC), which is located near the West entrance, just past the Cancer Center. Contact information is available in the Beaumont Emergency Response Procedures Quick Reference Guide if necessary.

D. Computer Downtime and Manual Operations

1. During some emergency situations, the hospital of Blood Bank computer system may be unavailable. If this occurs, the Blood Bank will need to perform manual operations as described in Transfusion Medicine Policy, Blood Bank Computer Downtime.

V. PROCEDURE:

A. Hospital Emergency Situations

1. The hospital employees will be notified of the emergency situation. In most cases, the notification will be made by an overhead announcement and/or text page on department warning system.
2. Any Blood Bank employees that are outside of the department at the time of on notification

should return to their workstations.

3. Retrieve one of the Beaumont Emergency Response Procedures Quick Reference Guides located in the Blood Bank.
4. Locate the specific emergency code in the Quick Reference Guide and determine what actions should be taken.
5. Employees should be ready to follow any additional directions given by management, security, and/or law enforcement.
6. Once the emergency situation has been resolved, employees will be notified by an “All Clear” announcement.

B. Blood Product Inventory Disruption

1. If external events lead to a limited blood product collections by blood suppliers, the Blood Bank's inventory will likely be affected. The Blood Bank will attempt to maintain satisfactory blood product inventories and order necessary products as described in the Transfusion Medicine Policy, Inventory and Ordering Blood Products From Established Blood Suppliers.
2. If the Blood Bank is unable to receive blood products from an established blood supplier while the inventory levels are below target range, then other Beaumont Health hospitals should be contacted to obtain necessary blood products, if available.
3. If the Blood Bank is unable to receive blood products from an established blood supplier or other Beaumont Health hospitals while at critical inventory level, it may be necessary to obtain blood products from suppliers that do not have a current purchase agreement with Beaumont Health. The Blood Bank Medical Director should be consulted prior to ordering blood products from suppliers not listed in the Inventory and Ordering Blood Products From Established Blood Suppliers

C. Blood Bank System/ Utility Disruptions

1. For system or utility disruptions within the department, it is unlikely that there will be any announcement or notification ahead of time, unless other departments are affected as well.
2. For any problems regarding equipment used to store blood products, or reagents, refer to Transfusion Medicine Policy, Response to an Alarm Condition, before relocating any products/ reagents.
3. Medical Director or Supervisor approval must be obtained prior to moving the contents of any storage device.

D. Power Disruption

1. In the Blood Bank, if normal power becomes unavailable, the red plugs will experience a short interruption of power as the system switches over to the emergency power generator.
    a. Critical or essential instrumentation and at least one of the two downtime PC's should be plugged into the red outlets to avoid loss of function.
    b. If necessary, refer to Transfusion Medicine Policy, Blood Bank Computer Downtime if the computer system(s) is unavailable due to power outage.

c. Notify the Blood Bank Supervisor and/or designee.

d. Document the event on a variance when time permits. Refer to Transfusion Medicine policy, Variance Reporting.

e. Immediately after the functionality of the computer system has been restored, a data integrity check shall be performed as described in the Transfusion Medicine Policy, Blood Bank Computer Downtime.

E. Phone Disruption

1. If the phone system is down within the department, the black phone located at the issue/ checkout counter can be used for emergency communication.
2. Hospital paging system/personal pagers can be used to communicate with other departments or specific individuals.
3. Staff cellular phones/Mobile Heartbeat communication are also permitted for communication if the normal hospital phone system is not functioning.
4. Notify the Blood Bank Supervisor and/or designee.
5. Document the event on a variance when time permits.

F. Pneumatic Tube Disruption

1. If the pneumatic tube system is down then specimens must be physically brought to the Blood Bank.

G. Water Disruption

1. If needed to ship out blood products, ice can be obtained from other departments within the hospital as well as shipped from other Beaumont Health facilities and blood suppliers.
2. Alcohol-based hand sanitizer is an acceptable replacement for washing hands with soap and water if necessary.
3. Back up containers of distilled water are maintained in the department for use on the instruments. If necessary it can also be obtained from the central supply or other departments within the hospital.
4. Notify the Blood Bank Supervisor or designee.
5. Document the event on a variance when time permits.

H. Irradiator Disruption

1. Blood Bank staff should take inventory of our current irradiated stock and order enough irradiated products to at least double our minimum inventory that is described in Job Aid: Minimum Irradiated Inventory.
2. Irradiated blood products can be obtained by:
    a. Ordering irradiated blood products directly from the blood supplier. Refer to Transfusion Medicine Policy, Inventory and Ordering Blood Products From

Established Blood Suppliers

b. Sending blood products to Beaumont Royal Oak, and/or Henry Ford Hospital

3. Notify the blood suppliers that all platelet deliveries must be irradiated until further notice.
4. Notify the Blood Bank Supervisor and/or designee.
5. Document the event on a variance when time permits.

I. Refrigerator Disruptions

1. When an equipment alarm or temperature deviation occurs, the Temperature Failure Evaluation and Documentation Form must be documented and appropriate actions must be taken as described below. Refer to Laboratory Policy, Temperature of Laboratory Refrigerators, Freezers and Storage Equipment if required.
2. If any blood product refrigerator is not functioning properly and is inadequate for storage (temperature is outside the acceptable temperature range of 1-6C) of blood products or RhoGAM:
    a. Medical Director or Supervisor will be notified prior to moving the contents of this refrigerator.
    b. Blood Bank staff should transfer the contents into another monitored blood bank refrigerator.
        i. RBC Units should be separated according to crossmatch status and blood type.
        ii. Continue to set up RBCs on patients that require serologic crossmatches but limit the amount of electronic crossmatch-eligible patients that are set up to save on space.
        iii. Document the event on a variance when time permits.
    c. If there are no monitored blood bank refrigerators available, the blood product should be transferred to an alternative refrigerator in the laboratory which has the same storage temperature as blood bank refrigerators.
        i. The chemistry walk-in refrigerator is maintained at 5°C and is the alternate backup.
        ii. RBC Units should be separated according to crossmatch status and blood type.
        iii. Manual temperatures of the alternative refrigerators will be taken at least every four (4) hours in accordance with Transfusion Medicine Policy, Manual Temperature Monitoring.
        iv. Moving the blood product inventory (RBCs, thawed FFP) should be top priority followed by reagents.
        v. Document the event on a variance when time permits.
3. If there are no refrigerators on-site that are suitable for storage of blood products:
    a. Blood should be packaged up in blood supplier shipping boxes with wet ice (6

pounds of wet per 20 units) both above and below the packaged products (blood products should be contained in a sealed bag with absorbent material in it).

b. Blood products can be sent to other Beaumont Health facilities or back to the blood supplier for storage at their facilities.

c. Document the event on a variance when time permits.

J. Freezer Disruptions

1. When an equipment alarm or temperature deviation occurs, the Temperature Failure Evaluation and Documentation Form must be documented and appropriate actions must be taken as described below. Refer to Laboratory Policy, Temperature of Laboratory Refrigerators, Freezers and Storage Equipment if required.
2. If the department freezers are not functioning properly and are inadequate for storage of frozen components:
    a. Notify the Medical Director, Blood Bank Supervisor or designee.
    b. Approval must be obtained prior to moving the contents of the freezer.
    c. Blood Bank staff should use carts to carefully transfer the contents of the malfunctioning freezer to a different freezer for temporary storage.
    d. There are multiple freezers that are set up with different temperature ranges that can be used as back-ups. Freezer temperatures must be verified and maintained prior to using alternate freezers.
    e. If there are no additional freezers to use as back-ups, then frozen blood products will be temporarily stored in Styrofoam coolers or FFP transport boxes containing dry ice. Dry ice can be obtained from the dry ice chest located in the courier room.
    f. Manual temperatures of the alternative storage device will be taken at least every four (4) hours in accordance with Transfusion Medicine Policy, Manual Temperature Monitoring.
    g. Frozen FFP can be sent to other Beaumont Health facilities or back to the blood supplier for temporary storage.
    h. Document the event on a variance when time permits.

K. Platelet Incubator Disruptions

1. When an equipment alarm or temperature deviation occurs, the Temperature Failure Evaluation and Documentation Form must be documented and appropriate actions must be taken as described below. Refer to Laboratory Policy, Temperature of Laboratory Refrigerators, Freezers and Storage Equipment if required.
2. If the platelet rotator stops functioning, staff should move as many platelets as possible onto the spare rotator in the store room.
3. Any platelets that do not fit on the backup platelet rotator should be sent to nearby Beaumont Health facilities for temporary storage.
4. Although it is not preferred, platelets are able to go without rocking for up to 30 hours. Monitor

the duration of each platelet that is not on a platelet rotator as well as the presence of platelet swirling.

5. Temperature monitoring of the product can be recorded with a chart recorder on the device or manually recording temperatures every 4 hours. Refer to Transfusion Medicine Policy, Manual Temperature Monitoring.
6. Document the event on a variance when time permits.

VI. NOTES:

A. If multiple system/facility disruptions occur at the same time, or other disruptions occur that are not addressed in this policy, notify the Medical Director, Blood Bank Supervisor and/or designee. Additional instructions will be determined based on the emergency or disruption taking place.

VII. REFERENCES:

1. AABB, Standards for Blood Banks and transfusion, current edition
2. Beaumont Emergency Response Procedures Quick Reference Guide.

Approval Signatures

Step Description	Approver	Date
	Jeremy Powers: Chief, Pathology	6/14/2022
Policy and Forms Steering Committe (if needed)	Kelly Sartor: Supv, Laboratory	6/11/2022
Policy and Forms Steering Committe (if needed)	Gail Juleff: Project Mgr Policy	6/9/2022
	Kimberly Geck: Dir, Lab Operations B	6/9/2022
	Kelly Sartor: Supv, Laboratory	6/9/2022
	Kelly Sartor: Supv, Laboratory	6/9/2022