

Forms

HLSM-020-F-01, Emergency Release Form
HLSM-020-F-02, Emergency Release Shipment Label
HS-305-F-01, Distribution Order Form
CS-401-F-01, Apheresis Order for Intrauterine/Postnatal Transfusion

Supplies and Equipment:

bexWISE Process Workstation Keyboard and Printer

Instructions

- A. Requests for **Emergency Release** may be needed for the following:
1. An untested or partially tested blood product,
 2. A unit with a positive test result,
 3. An Apheresis Platelet without bacterial detection/pathogen inactivation testing, or
 4. An Apheresis Granulocyte
- B. Requests may be communicated by a number of methods including, but not limited to:
1. **Apheresis Order for Intrauterine/Postnatal Transfusion** (CS-401-F-01) completed by Apheresis personnel.
 2. **Distribution Order Form** (HS-305-F-01)
 3. Verbal communication with a physician.
 4. **Emergency Release Form** (HLSM-020-F-01)
- C. The **Emergency Release Form** may be initiated by Apheresis, Collection Services, or by Hospital and Laboratory Services (HLS) personnel.
1. Record the following on the **Emergency Release Form**:
 - a. **Reason for Release**
 - b. Donor Identification Number (**DIN**)
 - c. **PCode**
 - d. **Patient**
 - e. **Ship to**
 - f. **Phone Results to** (name and/or phone number); Record **N/A** if not applicable.

2. HLS Management personnel are to print a screen from bexWISE Process: **Biologics Lab/Test Results/View** to determine whether there are positive or incomplete test results. Attach this print screen to the **Emergency Release Form**.
3. Record the test results from the print screen on the **Emergency Release Form** for the tests listed.
 - a. Record the **ABO/Rh** of the unit. ABO/Rh testing must be complete to allow release of the product.
 - b. Mark the **Pos** or **Neg** box to indicate the test results of any completed tests.
 - c. Mark the **NT** box for any uncompleted test at the time of product release.
4. For Apheresis platelets, mark the **Yes** or **No** box in response to the question: **Bacterial Detection/Inactivation Performed?** If the product is not an Apheresis platelet, then leave this section blank.
5. Contact a **CBC Physician** and record his/her name in the space provided.
 - a. Advise the physician of the Emergency Release request, and provide information about the nature of the request.
 - b. Inform the physician of the test results. Refer to the Component Core print screen.
 - c. Specifically discuss any initially or repeatedly reactive results, and whether time permits completion of repeat testing of initially reactive tests.
 - d. Obtain the physician's consent to fill the request. When possible, written consent is preferred prior to product shipment.
6. Document whether the CBC Physician provides verbal consent on the **Emergency Release Form**.
 - a. Mark the **Consents** or **Declines** box, as appropriate. If the CBC Physician declines to consent, then stop the **Emergency Release** procedure. Record the **Reason for Decline** in the space provided.
 - b. Mark the **N/A** box for obtaining verbal consent or declination if written consent is received immediately. Refer to Step C.7.d below.
 - c. The person receiving the verbal consent, declination or marking **N/A**, must complete the **Documented By/Date/Time** line.
 - d. Obtain written consent or declination as soon as possible after verbal consent is received.

- e. The CBC Physician must sign his/her name and mark the **Consents** or **Declines** box, and record the **Date**, and document the **Reason for Decline** in the spaces provided if applicable.
7. Document the **Requesting Physician** consent on the **Emergency Release Form**.
 - a. Record the name of the **Requesting Physician**.
 - b. Document the verbal consent by marking either the **Consents** or **Declines** box, as appropriate. If the requesting physician declines the product, then stop the **Emergency Release** procedure. Record the **Reason for decline** in the space provided.
 - c. The person receiving the verbal consent or declination must complete:
 - 1) **Documented By/Date/Time**
 - 2) **Fax Number**
 - 3) Mark the **N/A** box for obtaining verbal consent if written consent is received. Refer to Step C.7.d below.
 - d. Written consent of the Requesting Physician is required but is not necessary prior to shipment. After documenting the requesting physician's name on the form, fax the **Emergency Release Form** to the Requesting Physician for their signature and date. Instruct the physician to fax the form back to CBC when complete.
 - e. CBC physicians and hospital transfusion service staff may be requested to assist in the completion of the Requesting Physician documentation. However, it is the responsibility of CBC staff to ensure completion of documentation in a timely manner.

NOTE: The 'requesting physician' may be a resident or rotate at multiple hospitals, so additional contact information may be necessary to ensure completion of documentation.

 - f. The Requesting Physician must sign his/her name and mark either the **Consents** or **Declines** box, record the **Date** and document the **Reason for decline** in the spaces provided.
 8. Phone test results that are available at the time of shipping to the person or number recorded in Step C.1.f above.
 - a. Include the details of shipping the product, if available.

- b. This step is not applicable for Apheresis platelets without bacterial detection testing.
 9. Document the following:
 - a. Record the name of the individual receiving the test results on the **Initial Results Phone to** line.
 - b. Complete the **By/Date/Time** line for making the phone call.
 10. Complete the **Emergency Release Shipment Label** (HLSM-020-F-02) as follows:
 - a. **Physician** (Requesting)
 - b. **Hospital**
 - c. **Patient**
 - d. **Donor Identification Number**
 - e. Record the **ABO/Rh** of the unit.
 - f. Mark the **Pos** or **Neg** box for the results of any completed tests.
 - g. Mark the **NT** box for any test that is not completed at the time of product release.
 - h. For Apheresis platelets, mark the **Yes** or **No** box in response to the question:
Bacterial Detection/Inactivation Performed?
- D. Proceed to HLSM-020-WI-02, **Emergency Release of Products in bexWISE Process.**

END



Reason for Release:		DIN:	PCode:
Patient:	Ship to:	Phone Results to:	

The component above has been released with the following test results. [Pos=Positive; Neg=Negative; NT=Not Tested; N/A = Not Applicable]

ABO/Rh:	<input type="checkbox"/> NT	Anti-HCV:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT	HBV NAT:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT
RBC Antibody:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT	Anti-HIV-1/2:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT	HCV NAT:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT
Anti-HBc:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT	Anti-HTLV-I/II:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT	HIV NAT:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT
HBsAg:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT	Syphilis:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT	WNV NAT:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT
Chagas:	<input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> NT <input type="checkbox"/> N/A	Initial Results Phone to:		By/Date/Time:	

Apheresis Platelets Only:	Bacterial Detection/ Pathogen Reduction Performed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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CBC Physician (Name): _____ verbally Consents Declines N/A

Documented By/Date/Time: _____

I, _____ (CBC Physician Signature) Consents Declines Date: _____

Reason for decline, if applicable: _____

Requesting Physician (Name): _____ verbally Consents Declines N/A

Documented By/Date/Time: _____ Fax Number: _____

I, _____ (Requesting Physician Signature*) Consents Declines Date: _____

Reason for decline, if applicable: _____

*As required by Code of Federal Regulations 606.160(a)(3)(v), this form must be returned with the requesting physician's signature to CBC.

To Follow or Pos Results: Yes No Hospital Employee Notified: _____ By/Date/Time: _____

Product Transfused? Yes No CBC Physician Notified: _____ By/Date/Time: _____

Final Results Phoned to: _____ By/Date/Time: _____

Final Results Sent to Hospital By/Date: _____

Reviewed By/Date: _____

Community Blood Center/Community Tissue Services
Dayton, Ohio 45402-2715

Emergency Shipment for Use Only By

Physician: _____

Hospital: _____

Patient: _____

Donor Identification Number: _____

ABO/Rh: _____ NT **Anti-HTLV-I/II:** Pos Neg NT

RBC Antibody Pos Neg NT **Syphilis:** Pos Neg NT

Anti-HBc: Pos Neg NT **HBV NAT:** Pos Neg NT

HBsAg: Pos Neg NT **HIV NAT:** Pos Neg NT

Anti-HCV: Pos Neg NT **HCV NAT:** Pos Neg NT

Anti-HIV 1/2: Pos Neg NT **WNV NAT:** Pos Neg NT

Chagas: Pos Neg NT N/A

Apheresis Platelets: **Bacterial Detection/Pathogen Reduction Performed?** Yes No

HLSM-020-F-02

V 2.0

MEMORANDUM

TO: Transfusion Service Supervisors [and Transfusion Service Medical Directors]
[Hospital Emergency Program Directors]

FROM: Hospital and Laboratory Services Director [CBC Medical Director,] [Chief Operating Officer,]

DATE: [Enter Date]

RE: Notification of Blood Shortage – **Status: Yellow**
Hospital Correspondence #XX - XXX

Community Blood Center (CBC) is currently experiencing the following blood product shortages due to conditions indicated below.

<p>Blood products affected:</p>	<p><input type="checkbox"/> Red Blood Cells (RBC): <input type="checkbox"/> Group O <input type="checkbox"/> Group A <input type="checkbox"/> All blood types</p> <p><input type="checkbox"/> Fresh Frozen Plasma (FFP): <input type="checkbox"/> Group O <input type="checkbox"/> Group A <input type="checkbox"/> Group B <input type="checkbox"/> Group AB <input type="checkbox"/> All blood types</p> <p><input type="checkbox"/> Apheresis Platelets (SDP): _____ SDP units to be released at approx. _____.</p>
<p>Reason for shortage:</p>	<p><input type="checkbox"/> Local Event <input type="checkbox"/> Regional Event <input type="checkbox"/> National Event</p> <p><input type="checkbox"/> Comments: _____</p>
<p>Expected time frame:</p>	<p>The shortage is currently expected to last through _____. You will be promptly informed of any change in blood product availability and updated daily or as circumstances change.</p>

Normal blood product ordering and shipping protocols by CBC Hospital Services are now modified to conserve blood products within the community.

- Notification is for your information only.
- Advise notification of Medical Staff.
- Advise postponement of elective, non-emergent surgeries (see Note).

NOTE: This applies to elective procedures for which Autologous blood sufficient to cover anticipated losses is not available and a “type and cross” is usually indicated.

Should you need additional support for managing patients requiring blood during this period, please contact a CBC Medical Director by calling **CBC Hospital Services at 937.461.7557 or 937.461.7740.**

MEMORANDUM

TO: Transfusion Service Supervisors, Transfusion Service Medical Directors,
Hospital Emergency Program Directors

FROM: Hospital and Laboratory Services Director, CBC Medical Director, Chief Operating Officer

DATE: [Enter Date]

RE: Notification of Blood Shortage – **Status: RED**
Hospital Correspondence #XX - XXX

Community Blood Center (CBC) is currently experiencing critical blood product shortages due to conditions indicated below.

<p>Blood products affected:</p>	<p><input type="checkbox"/> Red Blood Cells (RBC): <input type="checkbox"/> Group O <input type="checkbox"/> Group A <input type="checkbox"/> All blood types</p> <p><input type="checkbox"/> Fresh Frozen Plasma (FFP): <input type="checkbox"/> Group O <input type="checkbox"/> Group A <input type="checkbox"/> Group B <input type="checkbox"/> Group AB <input type="checkbox"/> All blood types</p> <p><input type="checkbox"/> Apheresis Platelets (SDP): _____ SDP units to be released at approx. _____.</p>
<p>Reason for shortage:</p>	<p><input type="checkbox"/> Local Event <input type="checkbox"/> Regional Event <input type="checkbox"/> National Event</p> <p><input type="checkbox"/> Comments: _____</p>
<p>Expected time frame:</p>	<p><u>Anticipate a prolonged period of time for blood shortage.</u> You will be promptly informed of any change in blood product availability and updated daily or as circumstances change.</p>

During this time, blood ordering and shipping protocols will be maintained for critical and life-threatening cases only. You will receive notification when normal blood ordering practice may be resumed.

- **CBC Hospital Services:** Fill blood orders according to CBC Medical Director and Hospital Laboratory Services Director restrictions.
- **Hospital Transfusion Service:** Communication between hospital Medical Director and CBC Medical Director required for all orders.
- **Hospital:** Implement and strictly adhere to Emergency Blood Management Plan. Defer elective transfusions and/or surgeries associated with probable blood use where patient safety will not be adversely affected.

Should you need additional support for managing patients requiring blood during this period, please contact a CBC Medical Director by calling **CBC Hospital Services at 937.461.7557 or 937.461.7740.**

MEMORANDUM

TO: Transfusion Service Supervisors, Transfusion Service Medical Directors,
Hospital Emergency Program Directors

FROM: Hospital and Laboratory Services Director, CBC Medical Director, Chief Operating Officer

DATE: [Enter Date]

RE: Notification of Blood Shortage – **Status: Recovery**
Hospital Correspondence #XX - XXX

Blood product inventory levels at Community Blood Center (CBC) are steadily improving. Hospitals can expect a gradual increase in blood product inventory over time. CBC will maintain daily notification of the inventory status until optimal levels are obtained (Green status).

Elective surgeries and procedures deferred as a result of the blood product shortage may be rescheduled gradually as inventory levels continue to recover. Other blood management practices should still remain in place to reduce the risk of destabilizing the recovery process.

Comments: _____

Thank you for your support and collaboration during this critical blood shortage. By working together, we were able to manage the available blood product inventory effectively across the community and ensure that patients in critical need received blood.

Should you need additional support for managing patients requiring blood during this period, please contact a CBC Medical Director by calling **CBC Hospital Services at 937.461.7557 or 937.461.7740.**

Definition

- 1.0 For blood centers, the word “**disaster**” refers to any domestic disaster or act of terrorism that:
- Suddenly requires a much larger amount of blood than usual.
OR
 - Temporarily restricts or eliminates a blood collector’s ability to collect, test, process, and distribute blood.
OR
 - Temporarily restricts or prevents the local population from donating blood, or restricts or prevents the use of the available inventory of blood products and thus requires immediate replacement or resupply of the region’s blood inventory from another region.
OR
 - Creates a sudden influx of donors, requiring accelerated drawing of blood to meet an emergent need elsewhere.

Policy

- 1.0 We shall have emergency operation policies, processes, and procedures in place to ensure the availability of blood products for essential transfusions to hospitals across the community during internal and external disasters.
- 2.0 We shall maintain a hospital and company contact list for disaster/emergency use.
- 2.1 Key contact information will be provided by each hospital to include the Transfusion Service Medical Director, Transfusion Service Supervisor, Director of Laboratory, and other emergency contacts.
- 2.2 Contact information provided by hospitals must include multiple forms of communication for 24/7/365 coverage.
- 2.3 Contact information will be updated as information changes.
- 3.0 We will provide hospitals with a framework of recommended actions to follow in the event of a blood shortage.
- 3.1 Impact Status table – description of impact levels, their causes and recommended actions.
- 3.2 Checklists, guidelines – recommended tools that may be modified to meet specific hospital goals.
- 3.3 Notification of Blood Shortage forms – forms issued to all hospitals by the organization in the event of a blood shortage.
- 3.4 Job aids – tools provided by the organization to assist hospitals with blood product management and appropriate communication with the blood center throughout the disaster or blood shortage event.

- 4.0 We will provide a standardized plan of communication between the blood center and hospitals during emergencies and disasters for effective mobilization of blood products. **This plan is designed to operate at all times.**
- 4.1 Blood shortages are evaluated and confirmed by our Medical Director, Chief Operating Officer (COO), and the Hospital and Laboratory Services Director.
 - 4.2 Notifications will be communicated in a timely fashion to the transfusion service, transfusion service medical director, and the emergency management director at each hospital as indicated.
 - 4.3 Redundant lines of communication may be implemented to ensure that communication can be established and maintained. This includes phone, text, fax, email, radio or other methods depending upon access available at the time of the disaster/emergency event.
- 5.0 We will use reliable methods of transportation that clearly identify couriers and the content of their deliveries.
- 5.1 All couriers used will carry identification approved for blood shipments to hospitals.
 - 5.2 All blood shipment boxes will be clearly labeled as to their content.
- 6.0 We will participate with local, regional, and national emergency programs to insure access to available blood supplies.
- 6.1 Network of blood centers across the U.S. that import and export blood during emergencies or mass casualty events.
 - 6.1.1 America's Blood Centers (ABC)
 - 6.1.2 AABB (Association for the Advancement of Blood and Biotherapies)
 - 6.1.3 BERC (Blood Emergency Readiness Corporation)
 - 6.2 Network of emergency services programs at regional, state, and local levels.
 - 6.2.1 Greater Dayton Area Hospital Association (GDAHA)
 - 6.2.2 Montgomery County Office of Emergency Management (MCOEM)
- 7.0 We will test all portions of the blood shortage/disaster plan to ensure that the plan functions appropriately.
- 7.1 We participate with GDAHA and local/regional emergency programs in all hospital-related drills and table-top exercises that may include blood products.

- 8.0 We recommend that hospitals served by the blood center include the Blood Product Shortage Contingency Plan in their overall emergency/disaster plan. Tools provided in this plan may be modified for hospital use, except for the notification forms which are issued by us.

END

Definitions

The Blood Shortage Contingency Plan defines the severity of a blood product shortage using four levels of impact using a recognizable color-coded system (TSP-100-JA-02).

- **Green (go)** – no shortage, Blood center and hospital transfusion services follow normal operating procedures.
- **Yellow (yield, caution)** – temporary, localized shortage with less than 3-day supply area-wide. Duration is commonly less than one day. Examples: Group O RBC shortage due to multiple traumas or SDP shortage due to increased usage before blood center testing and labeling processes are complete.
- **Red (stop, warning)** – critical or long-term shortage that covers a larger area or has national impact. Supply is less than 2 days area-wide. Examples: pandemic flu or severe snowstorm prevents donor collection.
- **Gray (Recovery/restock)** – threat to blood inventory levels has been removed with expectation of gradual improvement. Hospitals should remain diligent about controlling blood use in order to reduce the risk of de-stabilizing the recovery process.

Instructions

- 1.0 We will notify hospitals of blood shortages according to the Blood Shortage Contingency Plan impact table.
 - 1.1 The Blood Shortage Contingency Plan is designed to operate at all times and routinely operates at Impact Status: Green unless otherwise notified.
 - 1.2 Blood shortage notifications will be issued when the impact status is determined to be Yellow or Red (TSP-100-WI-02).
 - 1.3 When platelet shortages are expected to last more than one day, platelet storage at stocking hospitals will cease until the shortage has been resolved.
 - 1.4 Notifications will be communicated daily to the transfusion service and to the transfusion service medical director at each hospital when indicated, according to the specific shortage event.
 - 1.5 Notification of blood supply recovery will be issued to all hospitals once the threat to inventory levels has been removed.
 - 1.6 Daily notifications will cease when the impact status returns to Green.
- 2.0 The Medical Director, Executive Vice President/Chief Operating Officer (EVP/COO), and the Hospital and Laboratory Services Director will monitor blood inventory levels in the community for appropriate usage and shipment during extended blood shortages.

- 2.1 Blood order requests will be monitored by the blood center under the direction of the Medical Director.
 - 2.2 In the event that the Medical Director recommends prioritization of blood transfusions, all blood orders will be reviewed by the blood center and transfusion service medical directors before blood products will be shipped.
- 3.0 A physician guidance document for the prioritization of blood transfusions is provided to all hospitals as part of the Blood Shortage Contingency Plan.
- 3.1 The priorities listed in this document are suggestions only and are not mandated by the organization. It is the responsibility of the treating clinician and the hospital to determine the appropriate treatment of their patient based on available blood products.
- 4.0 **Emergency Blood Management Plan:** The organization highly recommends that hospital transfusion services work with their blood centers and groups within their hospital to develop “explicit triage plans” in the event of severe blood product shortages.
- 4.1 An emergency blood management team should be established at each hospital to define priorities for blood transfusion and patient safety in the event of a blood shortage.
 - 4.2 Priorities or plans should be defined under routine conditions using evidence-based criteria available for optimal blood use (TSP-100-JA-02).
 - 4.3 The team should include the transfusion service manager and medical director, physician representatives from departments with significant transfusion volumes, nursing and infection control/transfusion safety staff. Membership should also include others besides physicians (e.g. executive level, patient advocate) to consider QA, patient satisfaction, and financial impact.
 - 4.4 Recommended tasks for this team include:
 - Formulate prioritization of blood products
 - Determine internal communication pathways
 - Participate in monitoring of prioritization during yellow/red status
 - Evaluate effectiveness of plan after event
 - 4.5 Recommendations and strategies for developing emergency blood management plans presented in this document are based on the AABB Interorganizational Task Force documents.

END

Forms

- HS-200-F-06, Notification of Blood Product Shortage (Yellow)
HS-200-F-07, Notification of Blood Product Shortage (Red)
HS-200-F-08, Notification of Blood Product Shortage (Recovery)

Definitions**1.0 Blood Product Shortage**

- 1.1 **Cause** - Shortages may result from local or regional events affecting this blood center only, or from a national event affecting multiple blood centers throughout the U.S. **However, the majority of shortages are localized.**

1.1.1 Local/Regional shortage: increased hospital transfusion activity; decreased blood center collection or processing of products. Possible events: inclement weather (i.e., snowstorm), fire, summer vacations, seasonal flu, accident involving multiple casualties.

1.1.2 National shortage: event affecting multiple blood centers reducing national blood supply, including new regulations to prevent transmission of virus/organism/contaminant, pandemic flu, terrorist attack.

- 1.2 **Affected Products** - Blood products affected during a shortage may be isolated from one product or blood type or across all products in the inventory. **In most cases, isolated blood product shortages are local, temporary and are resolved quickly** through activating additional volunteer donors or importing products from another blood center that is not affected. Examples:

1.2.1 Temporary shortage of Group O red blood cells due to increased utilization by a trauma facility.

1.2.2 Temporary shortage of apheresis platelets due to a decrease in volunteer donors in a given week.

- 1.3 **Length of Time** - The length of time of a shortage is determined by the cause. A localized event may cause a shortage of only a day or two as the blood center modifies activity to compensate. However, a national event such as a pandemic flu may take a prolonged period of time to resolve.

Instructions

- 1.0 Hospital Services shall notify hospitals of blood shortages in a timely manner through the following **Notification of Blood Shortage** forms (TSP-100-JA-01).

- Notification of Blood Shortage/Yellow form (HS-200-F-06) – short term shortage.
- Notification of Blood Shortage/Red form (HS-200-F-07) – long term shortage.
- Notification of Blood Shortage/Recovery form (HS-200-F-08) – gradual improvement of blood inventory after long term shortage.

- 1.1 Notification shall occur until the shortage has been resolved.

- 1.2 Notifications of short term (yellow) shortages shall be communicated to the hospital **transfusion service**.
 - 1.3 Notifications of long term (red) shortages or shortages that impact physician ordering practices and non-emergent surgical schedules shall also be communicated to transfusion service **medical directors**.
 - 1.4 Hospital **emergency management directors** shall also be notified when the blood shortage is the result of an event classified as a disaster.
- 2.0 Blood shortage notification forms shall be completed by Hospital Services and include the following information:
- 2.1 **Blood Products Affected:** a check box will be marked for products and blood types that are in short supply.
 - 2.1.1 Red Blood Cells (RBC and LR RBC) – only groups O and A are monitored.
 - 2.1.2 Apheresis Platelets (SDP) – specific blood types are not monitored. Time for release of collected, but unlabeled products will be provided when available.
 - 2.2 **Reason for Shortage:** a check box will be marked indicating the reason for the shortage and additional comments as needed.
 - 2.3 **Expected Time Frame:** We will document the anticipated duration of the shortage. However, hospitals will be updated daily on shortages that are expected to last more than one day and as circumstances change.
 - 2.4 Additional recommendations or comments may be added by us according to the blood shortage event. For short term (yellow) notifications, we will document if notification is informational only or if medical staff need to be advised.

END

Definitions

- Emergency Management Agency (EMA): county and state agencies that plan activities to mitigate, prepare for, respond to and recover from disasters.
 - Montgomery County Office of Emergency Management (MCOEM): local EMA.
 - Regional Dispatch Center (RDC): 911 centers – assist with communications.
- Greater Dayton Area Hospital Association (GDAHA): member service organization for hospitals and other healthcare services such as our organization in the greater Dayton region.
 - Coordinate activities between EMA, public safety agencies, and member hospitals and healthcare services to include development of plans, drills, purchase of equipment.
 - Coordinate MARCS and 800 MHz radio networks for disaster communications.
- Emergency Operation Center (EOC): central command and control post set up with EMA during an emergency/disaster event.
 - Provide multilevel communications, including interoperability with radio systems.
 - GDAHA representative included locally.
- Multi-Agency Radio Communications System (MARCS): statewide radio system providing interoperable communications for public safety responders. MARCS is a Motorola Type II SmartZone/Omnalink system.
 - Radios are available to all **Ohio hospitals** through ODH and locally through GDAHA.
 - Our organization does not use the MARCS radio system.
 - MARCS and other radio systems can be linked, or **patched** through, with assistance from local EMAs and RDCs.
- BLS Radio: radio system with specified band spectrum used by local, regional, and state public safety agencies across the US.
 - Our organization obtained BLS radios through GDAHA to communicate with hospitals during disaster events.
 - BLS radios and other systems can be patched for **interstate communication**.
- Amateur Radio Emergency Service (ARES): a corps of trained amateur radio operator volunteers organized to assist in emergency communications.
 - Amateur radio provides a means of communication “when all else fails”.
 - EMA assists with access to ARES as needed.

General Disaster Communication Pathway

- Event → Alert (Montgomery County Dispatch/regional hospital notification system) → EMAs
- EOC (GDAHA representative) → contact hospitals, blood center, health care facilities
- Communications between the blood center and hospitals → direct connection or assistance through local EMAs, EOC/GDAHA, and RDCs

Communication Options

- 1.0 During a disaster event, the following communication options are available and should be used in the order listed below.

- Telephone:
 - Blood Center land line at 937.461.7557
 - Blood Center wireless access at 937.267.6980, 937.371.5594, 937.545.4149
- Email:
 - The blood center to use hospital email contact list.
 - Hospitals to use blood@cbccts.org to communicate with CBC and order blood products. NOTE: email address only monitored during disaster events.
- Radio: BLS or MARCS radios
 - GDAHA members – radio network through GDAHA
 - Non-members – radio patch through MCOEM
- Additional emergency communication options through MCOEM:
 - Amateur (Hamm) Radio
 - Satellite phone system
 - Message relay

Instructions

- 1.0 In the event of a localized disaster, hospitals should contact our organization as soon as possible to report current inventory status, alert the blood center of possible issues and request additional blood products for shipment.
- 1.1 Incident: provide brief explanation of disaster event and number of patients affected, if known.
- 1.2 Inventory: provide current blood inventory totals by blood type for RBC/LRRBC and other blood products as needed.
- 1.3 Order: request additional blood inventory anticipated. NOTE: number of products shipped will be based on impact of disaster event on supply. See TSP-100-WI-01 and TSP-100-JA-02 for additional detail.
- 1.4 Logistics: alert blood center of any logistical problems that may be encountered when shipping blood.
- 1.4.1 Communications – provide any required changes to methods of contact.
- 1.4.2 Hospital access – provide instructions for courier to gain access to hospital in case of limited security access such as in the event of a hospital “lockdown”.
- Roads normally used to access hospital that are now closed
 - Hospital entries that can be used
 - Check in process now required by hospital security

END

Blood Shortage/Disaster Plan: HOSPITAL IMPACT

Status	Blood Inventory Level	Hospital Impact/Recommended Actions
Green (Normal)	<p>No Shortages</p> <p>Area-Wide Inventory: 3 days or more</p>	<p>Blood Center and Hospital:</p> <ul style="list-style-type: none"> ✓ Follow standard operating procedures for ordering, shipping, receiving and returning blood products.
Yellow (Caution)	<p>Temporary Shortages</p> <p>Area-Wide Inventory < 3 days</p> <p>May apply to one or more blood products and/or one or more blood groups.</p> <p>May result from an unexpected decrease in donations (e.g., pandemic flu).</p> <p>May result from a large or unexpected need for products due to a local/regional disaster with injuries (e.g., tornado, large explosion).</p> <p>May be used as an alert for anticipated shortage due to local/regional/national disaster.</p>	<p>Blood Center:</p> <ul style="list-style-type: none"> ✓ Send hospital correspondence memo: Notification of Blood Shortage-Status: Yellow to hospital transfusion service managers. ✓ Discontinue stocking platelets at hospitals. ✓ Manage hospital blood order requests per CBC medical director instructions. <p>Hospital:</p> <ul style="list-style-type: none"> ✓ Activate emergency blood management plan for status: yellow. ✓ Notify key clinical services and physicians of blood status. ✓ Monitor blood ordering and transfusion practice according to defined guidelines.
Red (Warning)	<p>Critical Shortages</p> <p>Area-Wide Inventory < 2 days</p> <p>Generally applies to all products and all blood types.</p> <p>Used during severe and prolonged shortages.</p> <p>Used when a severe threat to the inventory has been identified and is imminent (e.g., pandemic flu).</p>	<p>Blood Center:</p> <ul style="list-style-type: none"> ✓ Send hospital correspondence memo: Notification of Blood Shortage-Status Red to hospital transfusion service managers, medical directors and hospital emergency management directors. ✓ Discontinue stocking platelets at hospitals. ✓ Manage hospital blood order requests per blood center medical director instructions. <p>NOTE: Medical director approval required for distribution of blood products to hospitals.</p> <p>Hospital:</p> <ul style="list-style-type: none"> ✓ Activate emergency blood management plan for status: red. ✓ Cancel elective surgeries requiring blood. ✓ Manage hospital physician blood transfusion requests through transfusion service medical director. <p>NOTE: Communication between transfusion service medical director and blood center medical director required for ship/receipt of blood products.</p>
Recovery (Restock)	<p>Inventory levels returning to normal.</p> <p>Threat to inventory levels has been removed.</p> <p>Critical inventory levels expected to gradually increase until normal.</p> <p>Distribution of blood supply to be strictly managed by blood center until risk of destabilizing recovery is removed.</p>	<p>Blood Center:</p> <ul style="list-style-type: none"> ✓ Send hospital correspondence memo: Recovery Notification to hospital transfusion service managers, medical directors and hospital emergency management directors. ✓ Maintain platelet inventory at blood center only until notified. ✓ Manage hospital blood order requests per blood center medical director instructions. <p>Hospital:</p> <ul style="list-style-type: none"> ✓ Maintain emergency blood management plan for temporary shortages. ✓ Monitor blood ordering and transfusion practice according to defined guidelines. <p>ALL:</p> <ul style="list-style-type: none"> ✓ Participate in blood center/hospital evaluation of blood shortage process as requested.

STATUS: GREEN

Community blood supply and hospital transfusion activity are at normal levels.

Blood Center Hospital Services and Hospital Transfusion Services

- Ensure that the current Hospital Disaster Plan includes a contingency plan for managing blood supply shortages.**
 - Integrate this Blood Product Shortage Contingency Plan into the hospital's current disaster plan.
 - Include a policy for the delivery of blood products to another location in the event of a facility lockdown.
 - Provide training on the contents of the plan and communication pathways to the affected clinical services.
- Establish an Emergency Blood Management Plan to prioritize blood product utilization in the event of critical blood supply shortages.**
 - Establish an Emergency Blood Management Committee.
 - Formulate a hospital contingency plan for the appropriate management of available blood components during a shortage.
 - Identify key clinical services affected by blood supply shortages and establish a notification process.
 - Consider the Guidance for the Prioritization of Red Blood Cell Transfusions included in this plan.
 - Define clear communication pathways within hospital and with the blood center.
- Implement routine blood management 'best practices' to reduce blood use and optimize patient outcome.**
 - Update physician ordering practices for blood transfusion to meet the most current evidence-based data.
 - Define routine strategies to minimize blood product outdating and waste.
 - Include pharmaceutical options to reduce the need for transfusion.
- Confirm the availability of multiple communication options in the event that routine modes of communication such as phone lines are not in service.**
 - We will update on a regular basis the hospital contact list for disaster/emergency use. This list includes laboratory and transfusion service contact information. The list is distributed to all hospital transfusion services that receive blood products from us.
 - MARCS (Multi-Agency Radio Communications system) radios are available to all hospitals in Ohio.
 - 800-megahertz radios are available by county and state.
 - GDAHA supports communication as needed between members through MARCS and 800-mhz systems during disasters.
 - Hospitals that are not part of GDAHA will be contacted through county emergency dispatch centers.
 - Hospitals outside of Ohio will be contacted through their state emergency dispatch center.
 - Amateur Radio services may be used in the event that other options become unreliable.

STATUS: YELLOW

Short term shortage of blood product inventory

Blood Center Hospital Services

- Send hospital correspondence memo with **Notification of Blood Shortage – Status: Yellow**.
- Temporarily discontinue stocking platelets at hospitals that have platelet stocking schedules.

Hospital Transfusion Services

- Implement notification process defined for hospital emergency blood management plan – status: yellow.
- Monitor ordering and transfusion requests to ensure adherence to defined transfusion guidelines.
- Establish Transfusion Service Medical Director directive for managing blood order requests that do not comply with transfusion guidelines.
- Complete **Inventory Report and Order Form** daily.
- DO NOT attempt to stockpile blood products.

Hospital

- Activate implementation of hospital emergency blood management plan – status: yellow.
- Evaluate whether communication to patients and their families to explain the need for possible deferral of treatment is currently required and prepare as necessary.

STATUS: RED

Severe or prolonged shortage of blood product inventory

Blood Center Hospital Services

- Send hospital correspondence memo with **Notification of Blood Shortage – Status: Red.**
- Discontinue stocking platelets at hospitals that have platelet stocking schedules until further notice.
- Present all hospital blood product orders to Blood Center Medical Director or designee for approval to ship.

Hospital Transfusion Services

- Implement notification process defined for hospital emergency blood management plan – status: red.
- Present all blood product orders to Transfusion Service Medical Director or designee for approval to transfuse.
- Complete **Inventory Report and Order Form** daily.
- DO NOT place blood products on 'hold' status.
- DO NOT stock surgery or emergency department refrigerators.
- DO NOT stockpile blood products.

Hospital

- Activate implementation of hospital emergency blood management plan – status: red.
- Defer surgeries and treatments requiring blood transfusion that are not critical or life-threatening.
- Provide communication to patients and their families to explain the need for deferral of treatment.

END

- 1.0 Hospital Services routinely packs and ship in a consistent manner using reputable courier services to ensure the quality of the blood products provided. During disaster events, security issues may arise that require closer examination of shipping containers and delivery staff.
 - 1.1 Hospital Services will always pack blood products requested by hospitals in appropriate shipping containers that are **clearly labeled** with source and content.
 - 1.1.1 HUMAN BLOOD, handle with care
 - 1.1.2 Packing slip (inside box) with ordering hospital, hospital tech, blood products ordered by product and blood type, and Hospital Services tech who packed box.
 - 1.2 We routinely use the following couriers to transport blood to hospitals. All couriers wear **identification badges** and have been trained by Hospital Services to transport human blood products appropriately.
 - 1.2.1 Clipper Logistics, Inc.
 - 1.2.2 Same Day



END