



THE UNIVERSITY OF KANSAS HEALTH SYSTEM

Implementing a Mass Casualty Incident Protocol

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OBJECTIVES

- 1. Identify the necessary components of an MCI protocol.
- 2. Evaluate blood product storage options for use in an MCI.
- 3. Develop a communication plan for use in the event of an MCI.

What is a Mass Casualty Incident?

- A Mass Casualty Incident (MCI) is an event that creates an increased need for emergency and medical resources
 - Overwhelms the capacity of EMS and hospitals
 - Involves ED but can also affect Operating Rooms, Trauma Service, Burn Centers, and Blood Bank

What is a Mass Casualty Incident?

- Creates a need for additional staffing, supplies, and possibly alternative treatment sites
- Activation of a response protocol may happen in phases based on estimated number of patients
 - Phase I: up to 25 patients
 - Phase II: 26-50 patients
 - Phase III: 50+ patients

What is a Mass Casualty Incident?

Internal event

- Occurs within facility & interrupts normal operations
 - Utility failure
 - Bomb threats
 - Hostage situations

External event

- Creates large increase in patients arriving to hospital
 - Mass shooting
 - Natural disasters
 - Large scale transport incidents
 - Pandemics
 - Chemical, biological, or radiological exposure

May require support beyond hospital property

MCI Activation

- A MCI protocol is activated by a team of leaders from various departments within the hospital
 - Hospital Administration
 - Nursing
 - Police
 - Executive Office
 - Risk Management
 - Emergency Management
- Hospital staff will be notified of the MCI protocol activation via:
 - Overhead page
 - Phone
 - Email
 - Pager
 - Internal messaging system

Blood Bank Response - Communication

- Notify department leadership
 - Blood Bank manager/supervisor
 - Medical Director
 - Lab Administrative Director
- Staff will communicate:
 - Type of incident
 - Estimate of expected patients
 - Number of staff currently on shift
 - Number of staff coming in for next shift

Blood Bank Response - Communication

- Staff should also notify local blood product supplier
- Communicate important information:
 - Description of event
 - Estimate of expected patients
 - Current inventory levels
 - Estimate of blood product needs
 - Designated courier drop off location

Blood Bank Response - Staffing

- Staffing Plan
 - Manager will determine staffing needs
 - Current staff will stay
 - Next shift called in first
 - Utilize a call list to request additional staff
 - Organize by shift, then by proximity to hospital
 - Part time and PRN staff also listed
- Staffing needs will change based on updates from a Hospital Command Center

Blood Bank Response - Supplies

- Most important need in Blood Bank – BLOOD!
- Staff should assess current inventory levels
 - Order additional product proactively
 - Thaw extra plasma
 - Establish ordering “cues” for additional product needs
 - Consider creating RBC & plasma packs
 - Helpful to discuss with Emergency Department leaders
 - Automated inventory systems
 - Biolog ID – uses RFID to track inventory in real time
 - Eliminates need for manual counting of inventory

Blood Bank Response - Documentation

- Ideally, existing Laboratory/Hospital Information Systems and processes would be utilized
- Depending on situation, may need to rely on downtime processes or other protocols
 - Number of patients expected
 - Location of blood product need
- Evaluate need for MCI specific forms vs routine downtime forms
 - Can streamline MCI specific forms to include only most important information
 - Order form: patient identifiers, number of RBCs, plasma, platelets needed, ordering provider
 - Issue log: patient identifiers, unit number, product code, issued to

Blood Bank Response – Location

- Distribution of blood products may need to occur outside of the Blood Bank
 - Depends on type of event, size of facility, and need for blood products
- For smaller events, may be able to issue packs of products in validated cooler from the Blood Bank
 - MaxQ cooler options
 - Easily transportable with carrying straps or wheels

MaxQ Blood Product Coolers

Maxplus blood coolers

- Stores RBCs or plasma
- 2-10 units
- Validated for 24 hours



Maxplus mtp cooler

- Stores 2-6 RBCs, 2-6 plasma, 1-2 platelets
- Validated for 12 hours



Blood Bank Response - Locations

- Larger incidents may require product distribution to occur closer to the patient care area
 - Use of existing Blood Bank refrigerator in care area if possible
 - Increase available stock
 - Designate Blood Bank staff to issue blood at refrigerator to facilitate distribution

Roemer HemoRoam Refrigerators

- Mobile, battery powered refrigerated blood storage
- 1-6°C storage for 12-48 hours (depending on model)
- Various sizes options that can be stacked for customization
 - Largest option can hold 130 units of RBCs or plasma
 - Some models have platelet storage
- Optional temperature monitoring



Blood Bank Response

- Important to triage workload within the Blood Bank
 - Prioritize critical patient testing and blood product needs
 - Routine testing can be stored appropriately until time allows
 - Designate roles for each staff member
- Must ensure regulatory requirements are met:
 - Temperature monitoring of blood storage equipment
 - Reagent quality control
 - Equipment quality control
 - Accurate labeling of blood products
 - Complete documentation for issue of blood products

Questions?

