

UNIVERSITY OF TOLEDO

SUBJECT: CODE ORANGE: EMERGENCY MANAGEMENT OF
HAZARDOUS CHEMICAL, BIOLOGICAL AND
RADIOACTIVE INCIDENT

Policy No: EP-08-003

POLICY

Specific guidelines are in place to ensure proper management and treatment of hazardous chemical, biological and radioactively contaminated patients and to provide for protection of others.

PURPOSE

To ensure proper decontamination and quality of care, while protecting other patients, staff, visitors, and equipment from contamination.

PROCEDURE

A. Activation of Code Orange

1. Refer to Infectious Disease Agent and Max Surge Plan for highly infectious disease (i.e. EVD).
2. A Code Orange and its individual phases will be activated by calling HSC Security at 419-383-2600 upon the announced or unannounced arrival of contaminated patients at the University of Toledo Medical Center. These patients may be a result of internal or external contamination events. HSC Security will advise operators to call a Code Orange.
3. A Code Orange shall be operationalized through the activation of University of Toledo Medical Center's Code Yellow Disaster Procedure Hospital Incident Command System (HICS) as directed by the appointed Incident Commander in order to address the arrival of Emergency Department patients contaminated with hazardous materials.

4. The following Phases will be activated as deemed necessary by the Incident Commander:

Phase 0: Potential Incident - Indications are received that point to the potential arrival of contaminated patients in the University of Toledo Medical Center Emergency Department. Emergency Response Team Leaders are contacted by operators.

Phase I: 1 to 14 patients are expected - Activation of the Phase I in the ED and contaminated patients are received through the ED's Decontamination (Shower) Room (See Figure #1). Emergency Response Team may be activated.

Phase II: 15 or more patients are expected – A Phase II is activated and contaminated patients are received through the designated Decontamination Zone (See Figure #2). Emergency Response Team is activated.

B. Notifications to be made immediately

1. The Operator will be instructed to call either a Code Orange Phase 0, 1 or 2 by HSC Security and will contact Emergency Response Team leaders and administration via UT Alert based on the Phase and their Code Orange call in listing.
2. The DeconTeam Leader of the Emergency response team will determine the need to notify any outside agencies: Davis-Besse (1-419-321-8488), EPA (419-936-3015), local fire department (911), NRC (1-301-415-7000 until 11pm 7 days/week), Toledo Emergency Services (911) and/or Toledo/Lucas County Department of Health (go through 911 operator), etc.

C. Emergency Response Team Roster

(Code Orange Phase 0, 1 & 2) Emergency Response Team Leaders

Name	Specialty	Office Phone	Mobile/Cell
Tim Niederkorn	Chem/Bio/Rad	419-530-3605	419-704-1576
Heather Lorenz	Chem/Bio/Rad	419-530-3603	419-206-0896
Nicole Meagher	Chem/Bio/Rad	419-383-6542	419-346-6091
Skylar Rohrs	Chem/Bio/Rad	419-383-5089	419-966-2525
Andrew Shupp	Chem/Bio/Rad	419-383-3768	419-357-5269
Alex Reiner	Chem/Bio/Rad	419-383-6363	
Jennifer Reckner	Chem/Bio/Rad	419-383-4301	517-438-0233
Joe Agosti	Radiation	419-383-4301	419-345-8035
Dan Perry	Chem/Bio/Rad	419-530-1428	419-350-6440
Tony Kaminski	Chem/Bio/Rad	419-530-2115	419-704-2528

D. Briefing of Emergency Response Team Members

1. Briefing will take place in the basement of the ED
2. Information shall be provided concerning:
 - (a) Number of contaminated patients.
 - (b) Medical status of contaminated patients.
 - (c) Identification of hazardous material, biological agent or isotope, if known.
 - (d) Visual signs of contamination.
 - (e) Decontamination status of the victim -- full, partial, or none.
 - (f) Phase that has been activated
 - (g) Estimated time of arrival, or how long post arrival
 - (h) Mode of Transport.
3. Team members will be assigned roles as prescribed in the Decon Team Incident Command System based on their individual expertise.
2. Each member of the Emergency Response Team will receive a role as described in the "Action Sheets" that are located with the decon equipment.
3. Decon Team members assigned to the Stripper/Bagger role will pay special attention to collect all patient items to ensure proper collection of valuables, clothing etc. for safe keeping a preservation of evidence. Personal belonging bags are located under the ED.

E. Preparation of the Areas

1. Emergency Department Site Security

The entrance areas for contaminated and non-contaminated patients will be designated as per the current Phase of the Code Orange in accordance with Figures #1, 2 and 3.

Code Orange Phase 0

- Station officers and security personnel in ED satellite office to await further instructions
- HSC Security will contact Environmental Services to alert them that individuals from their department may be pressed into service to maintain ED and campus security per the Campus Lockdown Policy ([SM-08-003](#)).

Code Orange Phase 1

- HSC Security to don protective gear (nitrile gloves & surgical mask) located in satellite office for personal protection.
- Block off all doors/entrances into the Emergency Department and direct all contaminated individuals to Decon (Shower) Room Entrance. (See Figure #1)
- All non-contaminated non-critical patients may have to be directed to other hospitals as directed by Incident Commander in consultation with the ED
- Remove all vehicles and non-essential persons from the area surrounding the ED

Code Orange Phase 2

- Limit access to ED to only essential personnel, as directed by Incident Commander. Increase perimeter surrounding ED (See Figure #2).
- Officers proceed to entrances to ED and Rehab Lot and position police vehicles to limit access to roadways. Post vehicles with Code Orange signage
- Instruct drivers of contaminated vehicles to park them in a row on the East side of the road adjacent to the Dowling Hall Building with the keys left in them until further notice. Tell contaminated patients to return to entrance of George Isaac Center Lot.
- Contaminated emergency vehicles (i.e. ambulances) should be directed to off-load their patients in the entrance to the rehab lot and proceed through the non-ambulatory decon line.
- Non-contaminated non-critical patients will be allowed to proceed to Lot #41 and will proceed to the yellow or green treatment areas
- If non-contaminated critical patients arrive by car or ambulance they will be allowed to proceed up to unload patients in the triage area
- Restricted areas will be continually patrolled by Campus Police to prevent unauthorized access to triage and decontamination zones.
- Direct non-contaminated family members to Hospital Cafeteria.
- Direct Media to the Medical Pavilion or a designated location adjacent to the hospital.
- All decon team members will report for medical monitoring in the Triage Cold Zone prior to starting/resuming or ending their shift
- Institute campus-wide lock down of all entrances to campus from patients and non-essential persons utilizing Maintenance and Environmental Services personnel
- Prepare evidence preservation area in basement of ED in conjunction with Campus Police.

2. Duties of Emergency Response Team Members

Code Orange Phase 0 (Emergency Response Team Leaders Only)

- Determination of appropriate level of response will be determined through initial phone conversations with Incident Commander and based on hazardous material involved and the likelihood that there is a “credible threat” to the University of Toledo Medical Center
- Decisions will be made to determine if response is appropriate or should be elevated to the next phase.
- Recommendations will be by the Team Leaders to the Incident Commander and Senior UT Police Officer.
- Emergency Response Team Leaders will report to campus to either conclude Code Orange or assist in taking it to the next phase.

Code Orange Phase 1 (Emergency Response Team Leaders Only)

Note: Prior to arrival of Emergency Response Team Leaders ER staff may begin “Self directed Decon Procedures” for ambulatory patients and/or don PPE for treatment of non-ambulatory patients.

- Once on Campus, Emergency Response Team Leaders will assume the roles of Safety Officer and Decon Team leader in accordance with Hospital Incident Command System.

- Decon will be set up by Team Leaders in accordance with Figure #1 and set up appropriate equipment and assist ED staff in receiving patients.
- Decisions will be made to determine if response is appropriate or should be elevated to the next phase.

Code Orange Phase 2

- Emergency Response Team Members will assume roles under Decon Team Leader
 - a. Personal protective equipment will be determined, assembled and donned by trained members of the Emergency Response Team in accordance with their instructions from the Decon Team Leader and based on their assigned role cards.
 - b. Perimeters will be established and members of the Emergency Response Team will designate appropriate Decontamination and Triage Zones through the use of orange cones and barricade tape. (See Figure #2)
 - c. During previous drills/exercises, it has been determined that the Decon Team can decontaminate approximately 25-30 ambulatory patients and 6-8 non-ambulatory patients per hour.
 - d. Additional equipment will be assembled by team members as required by response phase level:
 - Obtain Decon Trailer from Records Retention Building
 - Set up Zumro Decon Tent(s) as specified in Figure #5
 - Heated water supply lines
 - Additional assembly of decontamination Tents/Showers equipment
 - Assembly of Decontamination Line
 - Scrub brushes and decontamination utensils
 - Gowns and coverings for patients
 - Assemble and prepare backup PPE for members of Emergency Response Team.
 - Emergency Response Team will work in conjunction with Toledo Fire Fighters dispatched to the University of Toledo Medical Center
 - Decon Team members will stay in the Hot and Warm Zones of Decontamination and will only allow decontaminated/tested patients proceed to the Cold “Triage Zone”

F. Points of Dispensing

1. Should the situation arise that would facilitate the need for medication dispensing as a result of a Code Orange incident, a Point of Dispensing (POD) location will be set up. Location will be determined at the time of need.
2. The Pharmacy director or designee will be contacted to assist with assigning and staffing the POD location.
3. Planning for POD set up should occur as soon as possible, including prior to placing order for and receiving MCMs, so that dispensing can occur as soon as possible.
4. Considerations for POD scope include the following:
 - It is the preference of the local Toledo Lucas County Health Department for a closed POD such as UT/UTMC to cover its own UT/UTMC community and its dependents/family members so that the open POD Health Department can concentrate on serving the appropriate scope of the rest of the Toledo community.
 - If scope of POD is determined not to just be employees and is to be made employees and family members (may include dependents), communication with appropriate managers and UTMC leadership is required to get estimate of number of family members. Consider adjusting for family exposure (150%) or multiply by 2.5 to estimate the total number of individuals requiring MCM.
 - Children of UT/UTMC employees may be included in POD. In this determination, it must be considered whether UT/UTMC has the necessary clinical specialists and resources to safely manage and triage these patients. Additional training and planning of materials, such as dosing and drug formulation/strengths may be required.

- Unless otherwise specified, pediatric patients (whether presenting in person or if listed on Head of Household form) not meeting adult dosing weight/age criteria should be referred to medical screening for further assessment.
 - Depending on the scope and size of the incident, and consideration of logistics involved with individual patient dispensing (example: weight-based dosing and needing patient specific drug labels, reconstitution, or preparation of liquid dosage forms), these patients may need:
 - To be referred to another POD with pediatric resources. This could be Toledo Lucas County Health Department and/or another institution.
 - Given appropriate dose per standard procedures.
 - Referred to UTMC Outpatient Pharmacy for dosing and dispense or to another outpatient pharmacy. A patient-specific standing order may need to be sent.
 - POD to be adapted with separate station(s) [such as for dispensing, counseling, etc.] to separately handle dispensing for pediatric patients.
5. Additional POD considerations include:
- The need to prevent additional exposure and practice social distancing, if applicable for the mass MCM clinical situation, may guide where PODs are set up. PODs may need to be staged outside in tents to be close to decontamination sites.
 - Measures to ensure proper temperature storage of the MCMs may be needed, depending on the drug, such as insulation, refrigerated units.
 - Signs should be posted at the appropriate POD station so staff and patients can easily see where to go and be stationed. Consider arrows or signs to show what the flow is for the POD (should only be in one direction).
 - All workers with potential patient exposure should be equipped with appropriate PPE per UTMC Infection Prevention to determine appropriateness.

G. Equipment Storage Locations

1. Equipment for immediate use in a Code Orange Phase 1, will be assembled in the ante room of the Decontamination (Shower) Room and will be designated as Storage Area #1. Storage Area #1 shall remain clear of non-disaster related equipment. Decontamination equipment will be maintained, inspected and readied for use by members of Emergency Department.
2. Essential response team equipment and other large items required for a Phase 2 response will be stored in Storage Area #2 in the basement of the ED, or in the decontamination trailer located at the Records Retention Building.

F. Extended Code Orange Response

- Decon Team Leader will determine if outside assistance is required from the community, School of Public Health and from alternate volunteer list of qualified environmental safety and health professionals.
- Notifications will be made to local fire departments via 911 if sustained decon is required.
- Incident Commander will contact City of Toledo emergency services for additional resources (i.e. Decon Trailer, additional pharmaceuticals etc.).
- Code Yellow will also be enacted in conjunction with Code Orange to maintain appropriate staffing levels and supplies.
- Other hospitals will be contacted in order to divert patients and/or obtain staffing based on mutual aid agreements.

- Provisions will be made in accordance with policy [HM-08-001](#), [HM-08-010](#), [HM-08-019](#) for the proper collection, labeling and disposal of hazardous, radioactive, infectious, and other waste generated during event.
 - Wastewater collected in ED holding tank and grey water bladders will be handled through local environmental contractors (Midwest 419-382-9200, or Rader 419-424-1144). The City of Toledo Department of Environmental Services (419-936-3015), LEPC (419-213-6502), City of Toledo Water Treatment Facility (419-936-3015) and Ohio EPA Northwest District Office (419-352-8461) will also be contacted in the event of generation of large amounts of contaminated wastewater. Hazardous waste will be collected and labeled by Environmental Health and Radiation Safety staff and be disposed of in accordance with written policies.

G. Emergency Room is Contaminated

- Decon Team leader will contact Environmental Contractor and other community resources in an attempt to decon the ED in order to reopen at earliest possible time.
- PACU will serve as Red/Yellow Zone until ED is reopened (See Figure #3)

H. Recovery after Phase 2 Event

- Community and mutual aid agreements will be enacted to keep University of Toledo Medical Center open after the event.
- Decon team members will assess equipment remaining and request support from community stockpiles and vendors
- Areas involved will be decontaminated and returned to pre-event levels by decon team members
- FEMA and other Federal agencies will be notified as soon as possible to allow for restocking of equipment stores.

I. Evaluation and Critique of Code Orange Response

- All events from Code Orange Phase 0 through Phase 2 will be evaluated immediately following all efforts
- Recommendations will be made by all involved as to where improvements can be made during the “Hot Wash”
- A listing of all required restocking will be generated for guidance in recovery efforts

EVALUATION

After each activation of this procedure, a detailed critique should be made and the report sent to the University of Toledo Medical Center Safety & Health Committee as soon as is feasible. This critique should include those people who were involved in decision-making and implementation of the procedure, along with verification of all applicable telephone numbers and the contents of the policy.

Source: Safety & Health Committee

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