

# UNIVERSITY OF TOLEDO

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

Policy No: EP-08-003

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## 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. A Code Orange and its individual phases will be activated by calling x77 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.
2. 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.
3. The Code Orange procedures in the Emergency Department are summarized in the procedural document entitled "Hospital-Based Hazardous Material Decontamination Manual" located in the Emergency Department.
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 paged directly by the Emergency Department.

**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 will be activated and instructed to call an informational voice mail line (x6200) describing the incident.

**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 and instructed to call informational voice mail line (x6200) describing the incident.

### B. Notifications to be made immediately

1. Emergency Response Team leaders will be paged by the Operator based on call in sheet located on following page.
2. The Operator will be instructed to call either a Code Orange Phase 0, 1 or 2 by the Incident Commander or Campus Police and automatically page response team members based on the Phase and their Code Orange call in listing.

3. Campus Police will be in contact with the Office of Communication and provide a detailed description to be placed on the informational voice mail line. (i.e. Response team members, a Code Orange has been activated; we are expecting \_\_\_# of patients that are contaminated with a white powder. Please report immediately to the Response Equipment Storage Area located in the basement of the Hospital Emergency Department accessed through the electrical substation/transformer room #0209 in the hospital basement.
4. 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\* (first four are to be called in immediately). Call others on table in order. Start with pager and then move to the next number to attempt to reach the team member.

Name	Specialty	Pager/Radio #	Office Phone	Home Phone	Mobile/Cell
Mike Valigosky*	Chem/Bio/Rad	419-292-6321	X4521	419-861-1050	419-266-5491
Tim Niederkorn*	Chem/Bio/Rad	N/A	X5089	419-704-1576	419-277-3628
Gary Jankowski*	Chem/Bio/Rad	419-444-0282	X3768	419-243-7832	419-265-4129
Heather Lorenz*	Chem/Bio/Rad	419-245-9600	21X3603	419-823-5451	419-206-0896
Matt Lockwood	N/A	N/A	21X2410	419-865-0037	419-360-0660
Communications	N/A	N/A	X4267	N/A	N/A
Mike Kovacs	General Decon	N/A	21X3605	419-698-1769	419-277-1383
Ryan McCall	General Decon	N/A	21X3641	586-778-6781	419-277-1051
Churton Budd	Chem/Bio/Rad	419-292-7330	X6461	419-381-1959	419-350-7449
Robert Reiter	General Decon	Radio #802	X5353	419-381-0184	419-367-1852
Joe Agosti	Radiation	419-936-6448**	X4301		
Carol Krieger	General Decon	N/A	X5003	419-335-6552	N/A
Kris Brickman	N/A	419-249-9033	X3888	419-843-2060	419-367-2804
Diane Smith	N/A	419-444-1640	X3888	419-435-0351	419-937-4270
Eddie Brentlinger	Radiation(Consultant)	419-640-3217	X4301	419-693-7682	N/A
Kathy Goans	General Decon	N/A	X4310	419-875-5288	419-346-6835
Tony Oberneder	General Decon	419-444-0490	X3767	419-822-3757	419-265-4128
Jesse Albright	General Decon	419-444-7004	Radio #8	419-474-3118	N/A
Fred Cerrone	General Decon	419-444-0491	Radio #10	419-382-4276	N/A
Rick Ruhlman	General Decon	N/A	X4310	419-898-2207	N/A
Mark Wooten	General Decon	N/A	X6625	419-381-1068	N/A
Michael Bisesi	Chem/Bio/Rad(Consultant)	N/A	X5356	419-866-6379	N/A
Brian Harrington	Biological(Consultant)	419-444-0626	X4806	419-385-5624	N/A

\*\*M-F 8:30a – 5p only

**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.
4. Each member of the Emergency Response Team will receive a role as described in the "Action Sheets" that are located with the decon equipment.

#### 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
- Prepare Code Orange signs and materials for posting
- Campus Police will contact Environmental Services to alert them that individuals from there department may be pressed into service to maintain ED and campus security per the Campus Lockdown Policy (SM-08-003).

##### **Code Orange Phase 1**

- Campus Police to don protective gear located in vehicles and 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
- Place directional Code Orange signage over Emergency Department entrances
- 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 in protective gear to 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 Issac Center Lot.
- Contaminated emergency vehicles (i.e. ambulances) should be directed to off-load their patients in the entrance to the rehab lot and procede through the the non-ambulatory decon line.
- Non-contaminated non-critical patients will be allowed to proceed to Lot #1 and will proceeded 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 media and non-contaminated family members to Hospital Lobby.
- 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 Campus 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 in accordance with Emergency Department's "Hospital-Based Hazardous Material Decontamination Manual".

- Once on Campus, Emergency Response Team Leaders will assume the roles of Safety and Health 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 with activation of entire Emergency Response Team

### **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. Additional equipment will be assembled by team members as required by response phase level:
    - Obtain Decon Trailer from Facility Support 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 are and will only allow decontaminated/tested patients proceed to the Cold "Triage Zone"

- Facilities Maintenance personnel will assemble tarp enclosures to enclose the old ED canopy to create an area of shelter for the ambulatory patients after decontamination. Additionally, maintenance personnel will obtain the propane heater and tanks from the basement of the ED for placement in the shelter area during times of extreme cold.

Note: In the event that the Emergency Department becomes contaminated every attempt will be made to make it operational through cleaning and decontamination efforts by Emergency Response Team members. However, in the event the Emergency Department becomes unusable patients will be redirected as outlined in Figure #3 to allow for continual operation of the Code Orange Phase 2 response. Decontamination areas (Hot, Warm, Cold) will be reestablished and the Old ED Canopy will become the new Emergency Department. Arrangements will be made to contact an outside Environmental Cleanup Contractor to begin decontamination of the Emergency Department as directed by the Decon Team Leader.

#### F. Equipment Storage Locations

- All 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. This room will remain locked at all times and a key will be located in the wall case outside the decon (shower) room. The equipment will be maintained, inspected and readied for use by members of Emergency Department. At a minimum the following equipment will be stored in this area:

Quantity	Equipment Description
25	N-100 Disposable Respirators
40	N-95 Disposable Respirators
5	PAPR Hoods
10	Level "C" Chemical Suit Packages with gloves, boots
25	Level "C" Tyvek Bio-hazard Suits (Assorted Sizes)
1	"Hospital-Based Hazardous Material Decontamination Manual"
1	Bioterry and other Response Books
1-roll	6-mil plastic sheeting
25	Patient Gowns for post decon
2	MARC "1" Chemical Antidote Kits
1-roll	Barricade Tape
10	Patient Self Decontamination Kits

- 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 Facility Support Building.

Quantity	Equipment Description
20	3-M Full Face Respirators with Compatible Cartridges
>100	Level "C" Chemical Suits
>100	Level "C" Tyvek Bio-hazard Suits (Assorted Sizes)
1	Copies of Decon Team Action Sheets
4-rolls	6-mil plastic sheeting
30	Pairs of rubber overboots
1500	N- 95 Respirators
25	N-100 Respirators
1	Soap dispensing sprayers
1	Tool Kit
2	Portable Spot Lights
1	250 gallon Stationary Gray Water Reservoir
1	Tarp Assembly for Old ED Canopy
200	Patient Decon Tags, Valuable Bags etc.
1	Water supply header
	Assorted hoses, decontamination devices, soap
1	Megaphone for Crowd Control

2	Zumro Decontamination Tents(Located in Decon Trailer)
2	Portable Water Heating Units(Located in Decon Trailer)
2	Tent Forced Air Heating Units(Located in Decon Trailer)
2	250 gallon Gray Water Bladders(Located in Decon Trailer)
2	Propane Fuel Tanks(Located in Decon Trailer)
8	Portable Fluorescent Lights(Located in Decon Trailer)
10	Assorted Garden Hoses(Located in Decon Trailer)
2	Portable Generators(Located in Decon Trailer)
2	Extension Cords(Located in Decon Trailer)
2	5 gallon Automatic Soap Dispensing Units(Located in Decon Trailer)
3	Back-up yellow decontamination lanes(Located at FSB)
16	Back-up poles for decontamination lanes(Located at FSB)
4	Back-up portable gray showers(Located at FSB)

**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 Blue Phase 2 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.

**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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