

KNOX/EAST TENNESSEE HEALTHCARE COALITION

This guide is provided to share common information across the Healthcare Coalition to help with emergency preparedness mitigation, preparedness, response, and recovery. This information is intended to be used to help enhance facility specific plans, not as a replacement of your plans. The codes listed are part of the Knox/East Tennessee Healthcare Coalition's standardized codes list. Your facility may not have adopted the code names used, but the response to the codes should be generalized enough that there is still a benefit to having the information included in the guides. The information in this guide may be edited/customized to fit your facilities specific policies & procedures.



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CODE BLUE – CARDIAC ARREST

If you discover someone who has suffered cardiac or respiratory arrest (they are unconscious and do not appear to be breathing), you should:

- Note the time.
- Summon help while remaining at the person's side. Push Code Button, pull emergency cord, shout, or yell if necessary.
- If possible, have code announced overhead giving the PBX Operator information about your location.
- Begin cardiopulmonary resuscitation (CPR), if you know how, and continue CPR until assistance arrives and takes over.



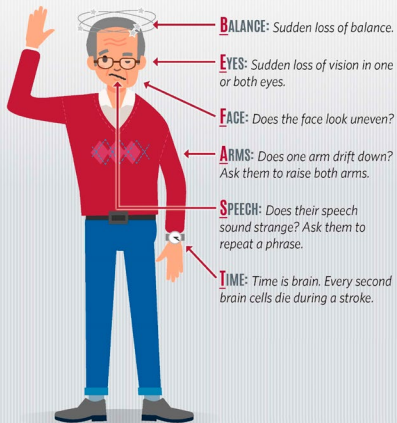
RECOGNIZE STROKE SYMPTOMS

BEFAST

Know the signs of stroke.

Stroke is a medical emergency.

For any sign of stroke, CALL 911! Every minute counts. Learn the physical symptoms to swiftly identify a stroke and save your life or the life of a loved one.



Stroke is a medical emergency! For any signs of a stroke, CALL 911 or activate your facilities Code Stroke protocol immediately.

CODE PINK – INFANT/PEDIATRIC ABDUCTION

Protection of infants is a pro-active responsibility for everyone in the facility, not just facility security. All health care facility personnel should be alert to any unusual behavior they encounter from individuals, such as the following:

- Repeated visiting “just to see” or “hold” the infants.
- Detailed questioning about health care facility procedures layout of the floor, such as: “When is feeding time?” “When are the infants taken to the mothers?” “Where are the emergency exits?” “Where do the stairs/elevators lead?” “How late are visitors allowed on the floor?”
- Taking uniforms or other means of hospital identification.
- Physically carrying an infant in the hospital corridor instead of using a bassinet to transport the child, or leaving the hospital with an infant while on foot rather than in a wheelchair.
- Carrying large packages off the maternity unit (e.g. gym bags), particularly if the person carrying the bag is “cradling” or “talking” to it.
- Recognizing that a disturbance in another area of the hospital can be a diversion to facilitate an infant abduction (e.g., fire in a closet near the nursery or loud, threatening argument in the waiting area).



IF AN ABDUCTION OCCURS OR IS SUSPECTED

- Alert staff: Utilizing facility notification system (PBX/Switchboard, operator, intercom, radio, text, etc.) state “Code Pink” giving location and age of the missing child (i.e., Pediatrics 3-year-old boy).
- When Code Pink Abduction is activated, respond to the nearest entrances, exits or stairwell in the facility.
- Notify the Police Department to help stop traffic from trying to leave the parking area and to assist in the search.
- Keep people away from the abduction area.
- All staff in the department/area where abduction occurred should remain in the area until the Police arrive.
- Report any suspicious persons carrying large bags or other suspicious items. If a person becomes aggressive, do not restrain.

Remember description of person; attempt to get description of vehicle if the person departs by automobile.

- Ask visitors to remain in building, in patient/resident rooms with doors closed until “all clear” is paged. Entrances and exits will be blocked, and no one will be allowed to enter or leave the facility.
- Utilizing the facility notification system, announce “all clear” when the event is over.

Be Alert to Unusual Behavior



CODE RED – FIRE EMERGENCY

Code RED is called when fire is discovered, or the facility's fire alarm system is activated.

- 1) Activate **R.A.C.E.**
 - a) **R**escue those in danger
 - b) **A**larm, pull fire alarm and dial 911 - Code Red
 - c) **C**ontain the fire by closing all doors behind you as you leave the area.
 - d) **E**xtinguish the fire if possible. Evacuate as needed.
- 2) DO NOT use elevators.
- 3) When using a fire extinguisher, **P.A.S.S.**
 - a) **P**ull the pin.
 - b) **A**im at the base of the fire.
 - c) **S**queeze the handle.
 - d) **S**weep from side to side.

fire doors away from affected area. Evacuate ambulatory, wheelchair, and bedridden patients/residents. Take patient/resident chart if safe to do so. Report to designated assembly area and account for all who were in the previous area.

Medical gas shut-off - Respiratory Therapy or designee is responsible for turning off the zone valves for each location.



Evacuate to an area nearer an exit, preferably behind

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CODE BLACK – BOMB THREAT

IF YOU RECEIVE A BOMB THREAT BY TELEPHONE...

1. Try to obtain as much information as possible from caller.
2. Keep caller on the line as long as possible.
3. Ask the caller to repeat message, by saying, “I am sorry I did not understand you, can you repeat that?”
4. Ask for the location of bomb and time it is to go off.
5. Listen for background noises, the voice (male/female, accent, etc.).
6. **Do not hang up the phone after the caller hangs up.** (This can help Police track the call.)
7. The person receiving the call needs to remain available for the Police/Bomb Squad questions.
8. Contact 911 or alert a co-worker to call for you so you can remain on the line.
9. Announce the “Code Black” only after Authorization from Administration. Administration will authorize the “Code Black” announcement under the following conditions:

A. If no specific target area was identified by the caller.

B. If an actual bomb is found.

10. Once departments search the facility, if a suspicious package is found they will contact the Incident Commander.

IF YOU FIND A SUSPICIOUS ITEM OR BOMB...

1. Leave it untouched and secure area until security/law enforcement arrives.
2. Call facility operator or 911 and report a “Code Black” suspicious item.
3. If so directed, evacuate your area.

IF YOU HEAR “CODE BLACK” ANNOUNCED...

1. Each department searches their own area. Mark each area searched.
2. If bomb or suspicious object is found, DO NOT TOUCH. Clear the area, close fire doors, notify Law Enforcement, Security or the Incident Commander.
3. Use flashlights as needed. Turning on lights can trigger an explosive device.
4. Follow instructions as you receive them. >>>

CODE BLACK – BOMB THREAT CHECKLIST

(PLACE THIS CARD UNDER YOUR TELEPHONE)

Date of call: _____

Exact words of caller: _____

Exact time of call: _____

QUESTIONS TO ASK CALLER:

1. When is the bomb going to explode? _____
 2. Where is the bomb? _____
 3. What does the bomb look like? _____
 4. What kind of bomb is it? _____
 5. What will cause it to explode? _____
 6. Did you place the bomb? Yes No
 7. Why? _____
 8. Where are you calling from? _____
 9. What is your address? _____
 10. What is your name? _____
- Sex _____
- Age _____
- Accent _____

BACKGROUND SOUNDS

- | | |
|---|--|
| <input type="checkbox"/> Street noises | <input type="checkbox"/> Factory machinery |
| <input type="checkbox"/> Phone booth | <input type="checkbox"/> Animal noises |
| <input type="checkbox"/> Voices | <input type="checkbox"/> Clear |
| <input type="checkbox"/> PA system | <input type="checkbox"/> Static |
| <input type="checkbox"/> Music | <input type="checkbox"/> House noises |
| <input type="checkbox"/> Long distance | <input type="checkbox"/> Local call |
| <input type="checkbox"/> Office machinery | <input type="checkbox"/> Motor |
| <input type="checkbox"/> Other: _____ | |

CALLER'S VOICE

- | | | | |
|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|
| <input type="checkbox"/> Normal | <input type="checkbox"/> Loud | <input type="checkbox"/> Calm | <input type="checkbox"/> Broken |
| <input type="checkbox"/> Slow | <input type="checkbox"/> Sincere | <input type="checkbox"/> Crying | <input type="checkbox"/> Giggling |
| <input type="checkbox"/> Slurred | <input type="checkbox"/> Angry | <input type="checkbox"/> Stutter | <input type="checkbox"/> Rapid |
| <input type="checkbox"/> Deep | <input type="checkbox"/> Stressed | | |

THREAT LANGUAGE

- | | |
|---|---|
| <input type="checkbox"/> Well spoken (educated) | <input type="checkbox"/> Foul Language |
| <input type="checkbox"/> Incoherent | <input type="checkbox"/> Irrational |
| <input type="checkbox"/> Taped | <input type="checkbox"/> Message scripted by threat maker |

CODE GRAY – (TORNADO, SEVERE THUNDERSTORM, SNOW, ETC.)

Code Gray followed by specific weather type (tornado, thunderstorm, snow, etc.) will be announced via the facility's notification system (overhead, radio, intercom, etc.) in the event that there is an imminent threat from a tornado or other severe weather event. In the event of an actual or potential tornado/severe weather event, the following safety measures will be taken:

TORNADO WATCH

A tornado watch is issued when there is a possibility of tornado activity associated with a particular storm or storm system. A watch may be in place for several hours.

1. When a tornado watch is issued for the area, staff should be made aware of the potential for a tornado, and reminded of procedures to take if a tornado occurs. An overhead announcement should not be made at this time to prevent announcement fatigue and overreaction by patients, visitors, and staff.
2. Shift supervisor should assign staff to listen to local radio and news weather reports.
3. The Shift Supervisor will collect a head count of all patients and staff in the facility.
4. Staff members will secure flashlights and test for proper operation. Patient's/resident's shoes or footwear should be placed on their bed.

TORNADO WARNING

1. When a tornado warning is issued due to an actual tornado sighting in the nearby region, steps 1–4 above will be implemented as quickly as possible if not already done.
2. **“Code Gray - Tornado”** will be announced on the overhead system. Inform outpatients and visitors of the tornado threat, and encourage them to remain in the building, in designated locations and to remain calm.
3. Close all doors.
4. Elevators will be restricted to emergency use only.
5. Staff members in patient/resident care areas will collect medical records and move to a safe area with the patients if time permits.
6. Essential clinical equipment will be connected to emergency power outlets as available.
7. Patients/residents, visitors, and staff will position close to interior wall of the hallway or other area



and squat close to the floor if possible. Pillows and blankets may be provided for protection from flying glass and debris if time permits.

8. Patients/residents, visitors and staff will remain in the relocation areas until notified by administrative personnel that the tornado threat is clear.

CLINICAL AREAS

1. Be certain that there is an adequate supply of blankets and pillows available. If additional linen is needed, contact the Laundry Department
2. Make certain that all personnel are familiar with plans for horizontal evacuation. Should a tornado be spotted, it will be necessary to move patients to a place of safety as quickly as possible. **DO NOT MOVE PATIENTS UNLESS IMMINENT DANGER. NOTIFY ADMINISTRATION IF PATIENTS ARE BEING MOVED INTO THE HALLWAY.**
3. Identify patients that are on oxygen. Make sure that the oxygen tubing is of sufficient length to move patient/resident in all way if necessary.

OFF-CAMPUS SITES – GENERAL INFORMATION

Monitor radio for weather information. If the area where you are located is having hazardous weather:

1. Check windows and doors to be sure they are securely latched.
2. Be prepared to move patients, visitors, staff, etc., into center hallways should conditions warrant.

3. Make sure patients, visitors and staff are moved away from windows.
4. Visitors should be encouraged to remain in the building, but cannot be detained against their will. People wanting to enter the building must be allowed to do so.
5. Pick up as many items off the floor as possible in case of water damage. Shut down computers and cover with plastic (use garbage bags if necessary).
6. Identify most important items and try to protect them as much as possible.
7. Contact 911 if there are injuries. If damage to the building occurs, try to leave from the building in the safest path possible. Help to remove patients and visitors from the building. Notify the facility if help is needed.

OFF-DUTY STAFF

Should severe weather threaten facility operations a disaster may be declared by Administration. Stay tuned to local radio and television stations for information and be prepared to report to the facility if requested. Be certain to bring your badge with you for identification at roadblocks if necessary.

Do not drive your car through water if you suspect it may be deep. Do not drive over, or touch downed power lines.

If a “Code Grey” is declared, facility employees are expected to help maintain adequate staffing levels.

CODE YELLOW – MASS CASUALTY/EXTERNAL DISASTER PLAN

DEFINITION OF EMERGENCY/DISASTER

An emergency/disaster is any natural or man-made event that significantly disrupts the environment of care which could significantly reduce facility services; or that results in sudden, significantly changed, or increased demands for the organization's services. This includes any emergency situation in which the facility expects to receive more patients/residents than they can accommodate at once with the regular number of staff. This term informs all facility locations, departments and employees to activate their disaster plan in response to a known or perceived situation impacting the facility (e.g., patients are on the way from a disaster scene, including mass casualties and DECON). It applies to any external emergency. Requires the activation of the Incident Command/ Administrative section for planning and discussion.

EMERGENCY/DISASTER DECLARATION

In the event of an external disaster, notification of the occurrence may be received through many different modes. The most likely occurrence will be receipt of a disaster notification from one of the local emergency services (e.g., Police, Fire, Civil Defense)

1. Upon receipt of notification that a disaster has occurred, the individual receiving the call shall obtain the following information from the caller:
 - Name of the caller
 - Telephone number of caller
 - Agency represented
 - Type of disaster (fire, chemical explosion, tornado, etc.)
 - Type of casualties (fire or chemical burns, head injuries, etc.)
 - Approximate number of casualties
 - Resources and/or assistance expected from the facility.
 - ETA (estimated time of arrival.)
 - Location of disaster

Person/department receiving the information will notify shift supervisor and/or administration immediately.

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CODE GREEN - SECURITY/DISRUPTIVE BEHAVIOR

A Code GREEN will be called if disruptive behavior endangers patients/residents, staff or visitors.
To activate, contact facility operator/security.

If a Code GREEN is called:

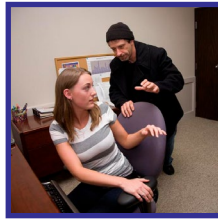
1. A designated team will respond to the Code, including Security and others.
2. Clear the area to avoid harm to others.
3. Place patient/resident on staff alert (magnet on door, sticker on chart).
4. Use buddy system for all patient/resident interaction during this visit.
5. Complete Incident Report.

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VIOLENCE IN THE WORKPLACE

Violent behavior in the workplace is defined as “any direct or indirect act and/or expressed intention to threaten, harass, intimidate, physically abuse, verbally abuse or coerce any person(s).”



All associates, physicians and volunteers are required to immediately report incidents of violent behavior to their Supervisor, Manager, the Security Department or the Human Resources Department.

If a threat is direct and imminent in nature, contact Security immediately. At facilities with no on-site Security, assistance can be obtained from local law enforcement by calling 911.

Each occurrence will be promptly investigated and appropriate action will be taken.

EXAMPLES OF WORKPLACE VIOLENCE

- Physical assault and/or threat.
- Stalking or continuous harassment of another causing terror, fear, worry or intimidation.
- Actions aimed at disrupting or sabotaging business operations.
- Indirect threats such as, “I know where you live.”

IF YOU ARE A VICTIM OR A WITNESS

- Notify the Security/law enforcement immediately.
- Advise the following:
 - Your name, location, including office number, type of workplace violence.
 - Are there injuries and if so, the extent of the injuries?
 - Is a weapon involved?
 - Is the perpetrator still in the area? – Does the threat still exist?
 - A description of the attacker and direction of flight.

IF NO INJURIES OCCURRED OR THERE IS NO IMMINENT DANGER

- Advise your Supervisor of the incident.

THREATS

- Written threats: Notes, letters, or faxed messages.
- Electronic threats: Telephones, voice mail, cassette tapes, emails, etc.
- Stalking: Following a person on or off site, repeatedly being in the same area when requested not to, etc.



- Harassment: Unwelcome acts, gestures, verbal communications, or physical contact not resulting in physical harm (physical acts are to be reported to Security/administration immediately).
- Overheard threats: Serious threats directed against an employee or about sabotage to property or indirect threats such as, “I know where you live.”

WHAT TO DO

- Call Security/administration to report any:
 - Strange or suspicious activity.
 - Aggressive, immediate physical act.
 - Weapons seen or threat of use.
 - Damaged security entrances or equipment.
 - Actions aimed at disrupting or sabotaging business operations.

Report behaviors or threats to your department head or supervisor immediately.

IF YOU ARE CONFRONTED BY A THREATENING PERSON:

- Leave the area.
- Call Security or 911 immediately.
- Report the incident to your department head.

IF YOU ARE UNABLE TO LEAVE THE AREA:

DO:

- Try to stay at a safe distance.
- Try to calm the threatening individual.
- Try to get the attention of a coworker so they can call Security/law enforcement.
- Listen to the individual and let him/her do most of the talking.
- Use delaying techniques to give the individual the opportunity to calm down.
- Acknowledge the person’s feelings.
- Be respectful and empowering.
- Be reassuring and point out choices.

DO NOT:

- Upset the individual with communication that generates hostility.
- Reject all the person’s demands from the start.
- Use body language or speech that challenges the individual.
- Make sudden movements.
- Belittle, criticize, or agitate the person.
- Make false statements or promises.

CODE ORANGE

Code ORANGE is called for a response to a chemical, biological, radiological, nuclear or explosive (CBRNE) event.

DECONTAMINATION OF POSSIBLE NUCLEAR, BIOLOGICAL OR CHEMICAL EXPOSURE

1. Assigned staff should prepare for decontamination of patients coming into the Emergency Room. Other management should report to Command Center as assigned by Administration. Operator should complete call-back of Administration and department directors.
2. Notify nursing supervisor of incoming contaminated patients.
3. Implement access control plan.
4. Incident command may activate Code Yellow plan.

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ACTIVE THREAT/ACTIVE SHOOTER & CODE PURPLE - HOSTAGE SITUATION

IF YOU OBSERVE A PERSON WITH A WEAPON OR THREATENING TO USE A WEAPON, YOU SHOULD:

1. Contact Security/911 to notify them of an active shooter/active threat, giving the person's location and explaining the situation in detail.
2. Do not try to disarm the person yourself.
3. Remove other patients, visitors and staff from the area as soon as possible.
4. Follow the direction of responding law enforcement agent(s) and Security personnel.
5. Incident Report is filed.

Note: There may also be situations involving potentially dangerous or life-threatening situations in the local community (outside the facility walls). Any local condition of unrest which affects the orderly conduct of the facility functions will be handled by the local, state or federal protective services with the full cooperation of the staff.

If there is any doubt, it is better to inform Security/911 too early rather than too late, as the situation can often be resolved before violence occurs.

HOW TO RESPOND WHEN AN ACTIVE SHOOTER IS IN YOUR VICINITY:

Quickly determine the most reasonable way to protect your own life. Patients/residents and guest are likely to follow the lead of staff and managers/directors during an active shooter situation.

RUN-WHEN AN ACTIVE SHOOTER IS IN YOUR VICINITY.

- Evacuate whether others agree to or not; leave your belongings behind.

- Help others escape if possible.
- Prevent others from entering the area.
- Call security/911 when you are safe.
- If you are dialing 911 from your cell phone, also call the facility's main number to notify them of the situation.

HIDE - IF EVACUATION IS NOT POSSIBLE, FIND A PLACE TO HIDE.

- Lock and/or blockade the door.
- Silence your pager or cell phone.
- Hide behind large objects.
- Remain very quiet.

FIGHT - AS A LAST RESORT, AND ONLY IF YOUR LIFE IS IN DANGER.

- Attempt to incapacitate the shooter.
- Act with physical aggression.
- Improvise weapons.
- Commit to your actions.

911 - WHEN LAW ENFORCEMENT ARRIVES.

- Remain calm and follow instructions.
- Keep your hands visible at all times.
- Avoid pointing and yelling.
- Know that help for the injured is on the way.

Unfamiliar voices maybe an active shooter trying to lure you from safety. Do not respond to voice commands until you can verify with certainty that they are being issued by a Security/ law enforcement officer.



Use caution when responding to a fire alarm during an active shooter situation as this could be a deterrent to draw more people into firing range.

HOW TO RESPOND WHEN LAW ENFORCEMENT ARRIVES ON THE SCENE

1. How You Should React When Law Enforcement Arrives:
 - Remain calm, and follow officers' instructions.
 - Immediately raise hands and spread fingers.
 - Keep hands visible at all times.
 - Avoid making quick movements toward officers such as attempting to hold on to them for safety.
 - Avoid pointing, screaming and/or yelling.
 - Do not stop to ask officers for help or direction when evacuating, just proceed in the direction from which officers are entering the premises.
2. Information You Should Provide to Law Enforcement or 911 Operator:
 - Location of the active shooter.
 - Number of shooters, if more than one.
 - Physical description of shooter/s.
 - Number and type of weapons held by the shooter/s.
 - Number of potential victims at the location.

HOSTAGE SITUATION – SECURITY

(Outside of the facility dial 911.)

Personnel who observe or are involved with a hostage situation must notify 911, Security or switchboard operator as soon as possible. Explain there is a Hostage Situation in progress. If possible, stay on the line without jeopardizing yourself and give as many details as possible, including:

- Physical description.
 - Location of person.
 - Number of people with weapons.
 - Number of people held hostage.
 - Your name and location.

Wait for instructions from law enforcement.

STEPS TO TAKE DURING A HOSTAGE SITUATION

- Remain calm and observant. Hostage situations are extremely volatile and dangerous in the first 5 to 10 minutes.
- Attempt to leave without being observed. Use stairways, not elevators. Attempt to move ambulatory patients/residents, if possible. Again, if possible, do so without being noticed.

OBSERVE THE FOLLOWING:

- Physical description, clothing, speech, height, accents, how many people.
- Behavior.
- Weapons.
- Location where the hostages were taken.
- How many hostages and where they are.
- Accept no orders from staff members held hostage, unless their lives are in danger.
- Do not enter into hostage area. Police have the only authority for granting hostage demands.

RECOGNIZING SIGNS OF POTENTIAL WORKPLACE VIOLENCE

An active shooter may be a current or former employee. Alert your Human Resources Department if you believe an employee exhibits potentially violent behavior. Indicators of potentially violent behavior may include one or more of the following:

- Increased use of alcohol and/or illegal drugs.
- Unexplained increase in absenteeism, and/or vague physical complaints.
- Depression/withdrawal.
- Increased severe mood swings, and noticeably unstable or emotional responses.
- Increasingly talks of problems at home.
- Increase in unsolicited comments about violence, firearms, and other dangerous weapons and violent crimes.

EVACUATION INSTRUCTIONS

Evacuation: Evacuation is necessary when remaining in any area may be hazardous to life, health or safety.

The decision to evacuate patients/residents is a serious one in which the inherent hazards to patients and staff brought on by an evacuation must be weighed against the potential dangers of the impending disaster. The order to evacuate will be given only by an Administrative Staff member, House Supervisor or the Safety Officer/designee in coordination with external partners. If an imminent threat to an occupied area occurs, staff in the area should move everyone to safety and call for assistance. In the event of evacuation, all department managers, prior to leaving, should search their respective areas, including offices and toilet facilities, to ensure that all patients/residents, employees, and visitors have departed. Elevators can only be used if approved by Fire Department.

In order to safely evacuate patients/residents, visitors, and associates, a coordinated plan involving notification of community partners, such as the local EMA, Police/Fire Department, Knox/East TN Healthcare Coalition HCC/ Designated Regional Coordinator, local Health dept., etc., will be made. An incident in one part of the building may not necessitate evacuation of the entire facility. Information will be communicated through the incident command structure.

TYPES OF EVACUATION:

Local Evacuation (within the same smoke compartment) Most fires in an inpatient healthcare facility can be contained within a small enough area to avoid actual movement of patients/residents or other personnel with the exception of those involved in the actual fire areas. Local evacuation would take place when persons are removed from the immediate area of the fire or within the same smoke compartment.

Horizontal Evacuation

Once the local evacuation procedure has been completed and the first responders are unable to extinguish the fire, the horizontal evacuation may commence. The decision to start a horizontal evacuation should be made by the Fire Department, an Administrative Staff member, the Safety Officer/designee, or the Department Manager/designee.

The patient/resident floors are segmented into smoke compartments, each providing a degree of protection from the other compartments.

These smoke compartments make provisions for a horizontal evacuation. If horizontal evacuation is ordered, the patients will be removed from the smoke compartment involved in the fire to another smoke compartment on the same floor.

1. The order to evacuate will be given only by an Administrative Staff member, House Supervisor or the Safety Officer/designee in coordination with external partners.

2. **General Instructions**

Whenever such an order for total evacuation is issued, the following procedure shall be adhered to by all personnel:

- A. All departments shall wait for evacuation instructions which shall come by intercom system, telephone, or messenger. It is imperative that the evacuation sequence is adhered to in accordance with instructions received at that time. Deviation from these instructions will create confusion and congestion along the evacuation routes, and may endanger the lives of patients/residents, visitors, and employees.
- B. Select the appropriate method of transporting patients based on the condition of the patients.
- C. Patients/residents may be discharged to family members, transferred to regional hospitals or may be transferred outside of the Region. This will be coordinated in the Command Center by the Incident Command staff using existing contacts. If additional resources are needed contact the EMA & Healthcare Coalition Coordinator.
- D. The COMMAND CENTER will be established.
- E. A quick evaluation of the patient's/resident's condition should be made by each dept. director, manager or designee, and they shall transmit this information to the Command Center. Example: Nursing Unit A

3 - Stretcher surgical critical	5 - Wheelchair surgical
6 - Stretcher medical critical	4 - Wheelchair medical
10 - Stretcher surgical non-critical	18 - Ambulatory



- F. Do not separate the patients/residents from their charts.
 - G. In addition to the actual evacuation, it is necessary to continue medical care of evacuated patients.
 - H. EVACUATION CENTER – Where possible, an evacuation center inside of the building should be established by the Incident Commander. Although an inside staging area may not be always possible. If patients/residents must be evacuated to the outside of the facility, a staging area should be established in the parking garage as suits the situation.
 - I. The EVACUATION CENTER will be run by medical personnel. Charts will remain with the patient. Patient's leaving the campus must be tracked. Admitting will establish a tracking process.
 - J. All patients/residents will be assembled in the evacuation area, regardless of which exit they were evacuated from. This area is referred to as the Evacuation Center.
 - K. Communications should be established by phone or radio as soon as possible.
 - L. The Human Resources Director or representative shall establish a non-medical personnel pool.
 - M. Whenever a nursing unit has been totally evacuated, make a last inspection to see that no one is left behind. Shut off all lights. Close all doors. Mark the door to indicate the room has been evacuated. Then, report to the evacuation center.
3. When an order for total evacuation is received, departments that have patients/residents (activities, radiology), shall not return them to their rooms, but shall proceed to take said patients/residents to the parking garage with their medical charts.
 4. When a total emergency patient/resident evacuation is ordered by the Senior Administrator, use the following methods to move patients:

HORIZONTAL EVACUATION

- A. Move patients/residents who are closest to danger first.
- B. Children should be handled like adults, except during ambulatory evacuation. In this case, alternate the older and younger children in the evacuation line.

- C. Next, start moving ambulatory patients/residents toward the nearest and safest protected area. Assign one employee to follow in the rear of each patient/resident group.
- D. Move wheelchair patients/residents to a safe area on the same floor. Return chairs for additional patients/residents.
- E. Move bedridden individuals via stretchers, litters, or med-sled. If these items are unavailable, use the cradle drop method to place a patient/resident on a blanket which has been set on the floor. Then, pull the patient/resident out along the floor to a safe location. If blankets are unavailable, use sheets (double-folded) bedspreads to drag patients to safety.

VERTICAL EVACUATION

- A. Lead ambulatory patients/residents up or down the nearest and safest protected exits/stairway. Refuge should normally be found one floor below the disaster or fire. However, if time permits, evacuate patients two floors downward. In all situations, evacuations should be by means of fire exits, no elevators!
 - B. Non-ambulatory and helpless patients/residents should be moved down stairways by means of med-sled, litters or emergency personnel carries. The recommended stairway or fire escape carries are the two-man swing carry or the three-man and four-man blanket carries.
5. Upon completion of the evacuation, all personnel shall report to the Evacuation Center give their names and telephone numbers to the assigned person. No personnel shall leave the premises without the authorization of the Senior Administrator through his/her Department Director.

ALL AREAS OFF-CAMPUS SITES:

If an immediate threat of life and/or property is identified, contact 911 and alert building occupants. All off-campus sites have identified an area to report to, in a safe location away from the building. Once everyone reaches a safe location, contact the Administration or after-hours the Administrator on Call.

TEN CRITICAL STEPS FOR HANDLING POSSIBLE BIOTERRORISM EVENTS

1. Maintain an index of suspicion.

In an otherwise healthy population, some associations are very suggestive, especially when seen in clusters, high numbers, or unusual presentations.

Clustered Symptoms	Potential Bioagent
Hemoptysis	Plague
Flaccid Paralysis	Botulism
Centripetal Rash	Smallpox
Widened Mediastinum	Anthrax
Purpura	Viral Hemorrhagic Fevers (VHF)

2. Protect yourself and your patients.

Use appropriate personal protection equipment (PPE). Prophylaxis: vaccines, if available; or antibiotics, if risks are known.

3. Adequately assess the patient.

Review and assess the patient's history. Also ask:

- Are others ill?
- Were there any unusual events?
- Was there an uncontrolled food source or other environmental factor?
- Has the patient/resident been traveling?
- What is the patient's immunization record?

Perform a physical examination with special attention to the respiratory system, nervous system, skin condition, and hematologic and vascular status.

4. Decontaminate as appropriate.

Do not use bleach on exposed people. A 1:10 dilution of bleach may be used on hard surfaces. Soap, water and shampoo are perfectly adequate for all biological and most chemical agents. Chemically contaminated clothes should be removed and discarded safely. Biologically contaminated clothes can be laundered with soap, water and perhaps bleach.

5. Establish a diagnosis.

Think clinically and epidemiologically; always send specimens for culture.

Symptom (Individuals)	Possible Diagnosis
Pulmonary	Tularemia, plague, staph enterotoxin B (SEB)
Neuromuscular	Botulism, Venezuelan equine encephalitis (VEE)

Symptom (Individuals)	Possible Diagnosis
Bleeding/Purpura	Viral hemorrhagic fevers (VHF), ricin, plague (late)
Rash (various)	VHF, T2 mycotoxin, smallpox, plague
Flu-like symptoms	Varies
Immediate Symptoms (Large Numbers)	Possible Diagnosis
Pulmonary	SEB, mustard, Lewisite, phosgene, cyanide
Neurological	Nerve gases, cyanide
Delayed Symptoms (Large Numbers)	Possible Diagnosis
Pulmonary	Biological agents, mustard, phosgene
Neurological	Botulism, VEE, other encephalitis

6. Render prompt treatment.

Airway, Breathing, Circulation.

7. Provide good infection control.

- Gown, gloves, mask, hand washing and eyewear, if necessary, are sufficient.
- Recommend isolation precautions for biological agents include:
 - Standard Precautions – for all individuals/patients.
 - Contact Precautions – viral hemorrhagic fevers.
 - Droplet Precautions – pneumonic plague and tularemia.
 - Airborne Precautions – smallpox.

8. Alert the proper authorities.

9. Assist in the epidemiological investigations.

Steps in an epidemiological investigation so as to determine who may be at risk.

- Count cases.
- Relate to the at-risk population.
- Make comparisons.
- Develop hypotheses.
- Test hypotheses.
- Make interfaces.
- Conduct studies.
- Interpret and evaluate.

10. Know and spread this information.



BIOTERRORISM QUICK REFERENCE GUIDE

This Bioterrorism Quick Reference Guide is designed to guide you during a potential threat of bioterrorism. Bioterrorism is defined by the Center for Disease Control (CDC) as “the intentional or threatened use of viruses, bacteria, fungi, and toxins from living organisms, or other chemicals, to produce death or disease in humans, animals or plants.” This guide, along with the Bioterrorism Reference Manual, will provide a brief summary of clinically relevant information dealing with the recognition, reporting, treatment and infection control/public health implications of several of the potential biological, chemical or radiological agents that could be used.

CLINICAL RECOGNITION AND MANAGEMENT OF SUSPECTED BIOTERRORISM EVENTS

Healthcare providers should be alert to illness patterns and diagnostic clues that might signal an unusual infectious disease outbreak due to the intentional release of a biological agent and should report these concerns immediately to the Department of Public Health.

Unlike a chemical or nuclear release, the covert release of a biological agent will not have an immediate impact because of the delay between exposure and illness onset. Consequently, the first indication of a biological attack may only be identified when ill patients presenting to physicians or other healthcare providers for clinical care.

Look for the following clinical and epidemiological clues that may be suggestive of a possible bioterrorist event:

1. Any unusual increase or clustering in patients present with clinical symptoms that suggest an infectious disease outbreak (e.g., greater than two [2] patients presenting with an unexplained febrile illness associated with sepsis, pneumonia, adult respiratory distress, mediastinitis, rash, or a botulism-like syndrome with flaccid muscle paralysis, especially if occurring in otherwise healthy individuals).
2. Any case of a suspected or confirmed communicable disease due to a Category A bioterrorism agent (e.g., anthrax, plague, tularemia, smallpox or viral hemorrhagic fever).
3. Any unusual age distributions for common disease (e.g., severe chickenpox-like illness among adult patients).
4. Any unusual temporal and/or geographical clustering or illness (e.g., persons who attended the same public event or religious gathering).
5. Any sudden increase in the following non-specific syndromes, especially if illness is occurring in previously healthy individuals and if there is an obvious common site of exposure:
 - Respiratory illness with fever
 - Gastrointestinal illness
 - Encephalitis or meningitis
 - Neuromuscular illness (e.g., botulism)
 - Fever with rash
 - Bleeding disorders
6. Simultaneous disease outbreaks in human and animal populations.

Some infections caused by potential bioterrorist agents presenting with distinctive signs that can provide valuable diagnostic clues. In previously healthy persons presenting with a febrile illness, the following signs and symptoms are highly suggestive of infection with certain biological agents:

Diagnostic Sign	Disease
Widened mediastinum with fever and sepsis	Inhalation anthrax
Pneumonia with hemoptysis	Pneumonic plague
Vesicular/pustular rash starting on face and hands, with all lesions at the same stage of development	Smallpox

HOW TO HANDLE ANTHRAX AND OTHER BIOLOGICAL AGENT THREATS

DO NOT PANIC!

Anthrax organisms can cause infection in the skin, gastrointestinal system or the lungs. To do so, the organism must be rubbed into abraded skin, swallowed, or inhaled as a fine, aerosolized mist. Disease can be prevented after exposure to the anthrax spores by early treatment with the appropriate antibiotics. Anthrax is not spread from one person to another person. For anthrax to be effective as a covert agent, it must be aerosolized into very small particles. This is difficult to do, and requires a great deal of technical skill and special equipment. If these small particles are inhaled, life-threatening lung infection can occur, but prompt recognition and treatment are effective.

FOLLOW THESE PROCEDURES IF YOU RECEIVE A SUSPICIOUS UNOPENED LETTER OR PACKAGE MARKED WITH THREATENING MESSAGE SUCH AS “ANTHRAX”

1. Do not shake or empty the contents of any suspicious envelope or package.
2. Place the envelope or package in a plastic bag or some other type of container to prevent leakage of contents.
3. If you do not have a container, then cover the envelope or package with anything (e.g., clothing, paper, trash can, etc.) and do not remove this cover.
4. Leave the room and close the door, or section off the area to prevent others from entering (i.e., keep others away).
5. Wash your hands with soap and water to prevent spreading any powder to your face.

6. What to do next...
 - If you are at home, report the incident to the local police—dial **911**.
 - If you are at work, notify your supervisor immediately.
7. List all people who were in the room or area when this suspicious letter or package was recognized. Give this list to both the local public health authorities and law enforcement officials for follow-up investigations and advice.

QUESTION OF ROOM CONTAMINATION BY AEROSOLIZATION

For example: small device triggered, warning that air handling system is contaminated, or warning that biological agent was released in a public space.

1. Turn off local fans or ventilation units in the area.
2. Leave area immediately.
3. Close the door, or section off the area to prevent others from entering (i.e., keep others away).
4. What to do next...
 - If you are at home, dial **911** to report the incident to local police and the local FBI field office.
 - If you are at work, dial **911** to report the incident to local police and the local FBI field office, and notify your supervisor immediately.
5. Shut down air handling system in the building, if possible.
6. If possible, list all people who were in the room or area. Give this list to both the local public health authorities so that proper instructions can be given for medical follow-up, and to law enforcement officials for further investigation.



HOW TO IDENTIFY SUSPICIOUS PACKAGES AND LETTERS

Some characteristics of suspicious packages and letters include the following:

- Excessive postage
- Handwritten or poorly typed addresses
- Incorrect titles
- Title, but no name
- Misspellings of common words
- Oily stains, discolorations or odor
- No return address
- Excessive weight
- Lopsided or uneven envelope
- Protruding wires or aluminum foil
- Excessive security material such as masking tape, string, etc.
- Visual distractions
- Ticking sound
- Marked with restrictive endorsements, such as “Personal” or “Confidential”
- Shows a city or state in the postmark that does not match the return address



DRAFT

ACUTE RADIATION SYNDROME

Acute radiation syndrome (ARS) (sometimes known as radiation toxicity or radiation sickness) is an acute illness caused by irradiation of the entire body (or most of the body) by a high dose of penetrating radiation in a very short period of time (usually a matter of minutes). The major cause of this syndrome is depletion of immature parenchymal stem cells in specific tissues.

THE REQUIRED CONDITIONS FOR ACUTE RADIATION SYNDROME (ARS) ARE:

- The radiation dose must be large: greater than 0.7 Gray (Gy) or 70 rads. (Mild symptoms may be observed as low as 0.3 Gy or 30 rads.)
- The dose usually must be external (i.e., the source of radiation was outside of the patient's body).
 - Radiation materials deposited inside the body have produced some ARS effects only in extremely rare cases.
- The radiation must be penetrating (i.e., able to reach the internal organs).
 - High energy X-rays, gamma rays and neutrons are penetrating radiations.
- The entire body (or a significant portion of it) must have received the dose.
 - Most radiation injuries are local, frequently involving the hands, and these local injuries seldom cause classical signs of ARS.
- The dose must have been delivered in a short time (usually a matter of minutes).
 - Fractionated doses are often used in radiation therapy. These are large total doses delivered in small daily amounts over a period of time. Fractionated doses are less effective at inducing ARS than a single dose of the same magnitude.

THE THREE CLASSIC ARS SYNDROMES ARE:

Bone marrow syndrome: the full syndrome will usually occur with a dose between 0.7 and 10 Gy (70–1000 rads) though mild symptoms may occur as low as 0.3 Gy or 30 rads.

- The survival rate of patients with this syndrome decreases with increasing doses. The primary cause of death is the destruction of the bone marrow, resulting in infection and hemorrhage.

Gastrointestinal (GI) syndrome: the full syndrome will usually occur with a dose between 10 and 100 Gy (1000–10,000 rads) though some symptoms may occur as low as 6 Gy or 600 rads.

- Survival is extremely unlikely with this syndrome. Destructive and irreparable changes in the GI tract and bone marrow usually cause infection, dehydration and electrolyte imbalance. Death usually occurs within two weeks.

Cardiovascular (CV)/Central Nervous System (CNS)

Syndrome: the full syndrome will usually occur with a dose greater than 50 Gy (5000 rads) though some symptoms may occur as low as 20 Gy or 2000 rads.

- Death occurs within three days. Death is likely due to collapse of the circulatory system as well as increased pressure in the confining cranial vault as the result of increased fluid contact caused by edema, vasculitis and meningitis.

SPECIAL CONSIDERATIONS FOR RADIOACTIVE AGENT DECONTAMINATION

1. If the possible threat involves radioactive material or radiation exposures, the radiation safety officer (RSO) will be contacted immediately to assist in determining the type of radiation, the extent of the dose and framing out the best, safest course of action and contingencies.
2. The RSO will determine the type and extent of injury/exposure (i.e., external irradiation, absorption through the skin, inhaled, introduced through wounds, etc.).
3. Conventional exposure prevention methods to protect staff and physicians.
 - Time – Assessment, decontamination, treatment, etc., must be performed quickly and efficiently. The shorter the time in a radiation field, the less the radiation exposure.
 - Distance – The farther from the source of radiation the lower the dose. Establish “hot” and “cold” zones to allow for the clear discernment of the hazardous area, and promote strict isolation precautions and safe distances. Use brooms and implements with long handles to move contaminated materials to avoid physical contact.
 - Shielding – Although not always practical in an emergency, barriers can reduce radiation exposure.



Patients known or suspected of being contaminated should be decontaminated with soap and water without delay. Open wounds should be irrigated first and covered with sterile dressing. Following decontamination, patients should be reevaluated and, if negative, admitted to the hospital for assessment and treatment. Evidence of continued contamination will require additional washing.

ACUTE RADIATION SYNDROME CHART

Syndrome	Dose	Prodromal Stage	Latent Stage	Manifest Illness Stage	Recovery
Bone Marrow	<ul style="list-style-type: none"> 0.7 – 10 Gy (70 – 1000 rads). Mild symptoms may occur as low as 0.3 Gy or 30 rads. 	<ul style="list-style-type: none"> Anorexia, nausea and vomiting. Occurs one hour to two days after exposure. Lasts for minutes to days. 	<ul style="list-style-type: none"> Stem cells in bone marrow are dying, though patient may appear and feel well. Lasts one to six weeks. 	<ul style="list-style-type: none"> Drop in all blood cell counts for several weeks, anorexia, fever, malaise. Primary cause of death is infection and hemorrhage. Survival decreases with increasing dose. Most deaths occur within a few months after exposure. 	<ul style="list-style-type: none"> In most cases, bone marrow cells will begin to repopulate the marrow. There should be full recovery for a large percentage of individuals from a few weeks up to two years after exposure. Death may occur in some individuals at 1.2 Gy (120 rads). The LD 50/60 is about 2.5 to 5 Gy (250 to 500 rads).
Gastro-intestinal (GI)	<ul style="list-style-type: none"> 10-100 Gy (1000-10,000 rads). Some symptoms may occur as low as 6 Gy or 600 rads. 	<ul style="list-style-type: none"> Anorexia severe nausea, vomiting, cramps and diarrhea. Occurs within a few hours after exposure. Lasts about two days. 	<ul style="list-style-type: none"> Stem cells in bone marrow and cells lining GI tract are dying, though patient may appear and feel well. Lasts less than one week. 	<ul style="list-style-type: none"> Malaise, anorexia, severe diarrhea, fever, dehydration, electrolyte imbalance. Death is due to infection, dehydration and electrolyte imbalance. Death occurs within two weeks of exposure. 	<ul style="list-style-type: none"> The LD 100 is about 10 Gy (1000 rads).
Cardiovascular (CV) Central Nervous System (CNS)	<ul style="list-style-type: none"> Greater than 50 Gy (5000 rads). Some Symptoms may occur as low as 20 Gy or 2000 rads. 	<ul style="list-style-type: none"> Extreme nervousness; confusion; severe nausea, vomiting, and watery diarrhea; loss of consciousness; burning sensations of the skin. Occurs within minutes of exposure. Lasts for minutes to hours. 	<ul style="list-style-type: none"> Patient may return to partial functionality. May last for hours but often is less. 	<ul style="list-style-type: none"> Return of watery diarrhea, convulsions, coma. Begins five to six hours after exposure. Death within three days. 	<ul style="list-style-type: none"> No recovery.

BIOLOGICAL AGENTS REFERENCE CHART

DESCRIPTION	CLINICAL FEATURES	TRANSMISSION MODES	DECONTAMINATION	IC – ISOLATION
Anthrax <ul style="list-style-type: none"> An acute infectious disease caused by <i>Bacillus anthracis</i>. Disease occurs most frequently in sheep, goats and cattle by eating contaminated soil. 	<p><i>Can occur in three forms:</i></p> <p>Pulmonary – Non-specific flu-like symptoms followed by a brief period of improvement then an abrupt onset of respiratory failure after two to four days.</p> <p>Cutaneous – Local skin involvement following direct contact with spores (lesions commonly seen on head, forearms and hands).</p> <p>Gastrointestinal – Abdominal pain, nausea, vomiting, bloody stool; typically following the ingestion of contaminated food.</p>	<ul style="list-style-type: none"> Skin contact, inhalation of spores (e.g., from contaminated animals – “wool sorter’s disease”). Ingestion of contaminated food. <p><i>Transmission of Anthrax from person to person is unlikely.</i></p> <ul style="list-style-type: none"> Airborne transmission does not occur, but transmission could occur through direct contact with skin lesions. 	<ul style="list-style-type: none"> The risk of re-aerosolizing <i>Bacillus anthracis</i> is extremely low. In situations where risk of gross exposure to actual spores exists, consider cleaning skin with soap and water to reduce risk of cutaneous transmission. Instruct patients to remove clothing and handle with minimal agitation. Decontaminate surfaces using approved disinfectant. 	<ul style="list-style-type: none"> Standard/Universal Precautions should be applied for care of patients, transport and management of equipment. <p><i>Private room placement is NOT necessary.</i></p>
Botulism <ul style="list-style-type: none"> <i>Clostridium botulinum</i>, an anaerobic gram positive bacillus, produces a potent neurotoxin (botulinum toxin). 	<ul style="list-style-type: none"> Food-borne botulism is characterized by gastro-intestinal symptoms. Inhalational and food-borne botulism share the following symptoms: <ol style="list-style-type: none"> Blurred vision. Symmetric descending weakness and paralysis. Drooping eyelids, difficulty swallowing or speaking, weakened jaw clench, etc. Respiratory dysfunction. 	<ul style="list-style-type: none"> Usually transmitted by ingestion. Aerosolization of botulism may be a mechanism for bioterrorism. <p><i>Botulism is NOT transmitted from person to person.</i></p>	<ul style="list-style-type: none"> There is no risk of dermal exposure or re-aerosolization. <p><i>Decontamination is NOT required.</i></p>	<ul style="list-style-type: none"> Standard/Universal Precautions should be applied for care of patients exposed to botulism and for the cleaning and disinfection of surfaces and equipment. <p><i>Patient-to-patient transmission does NOT occur.</i></p>
Plague <ul style="list-style-type: none"> An acute infectious bacterial disease caused by the gram negative bacillus <i>Yersinia pestis</i>. Bioterrorism outbreak may be airborne causing pneumonic plague. 	<ul style="list-style-type: none"> Fever, cough and chest pain. Mucopurulent or watery sputum. Evidence of bronchopneumonia in X-ray. 	<ul style="list-style-type: none"> Typically transmitted to humans by an infected flea from an infected rodent. Bioterrorism related outbreaks could be caused by dispersion of an aerosol. Person-to-person transmission possible through large aerosol droplets. 	<ul style="list-style-type: none"> The risk of re-aerosolization of the bacteria is low. Removal of clothing and decontamination with soap and water may be considered in situations of gross exposure. 	<ul style="list-style-type: none"> Aerosolized droplet precautions (such as TB measures) should be employed in addition to Universal Precautions. Infected patients should be placed in designated rooms with atmospheric isolation.
Smallpox Possible viral biological exposure. <ul style="list-style-type: none"> The <i>Variola</i> virus causes both major and minor forms of the disease. The virus could be relatively simple to disseminate as a biological agent. While smallpox was declared eradicated in 1980s, concerns remain over possible stockpiling. 	<ul style="list-style-type: none"> Latent onset of flu-like symptoms. Initial macules progress to pustular vesicles that scab over within 10 days. 	<ul style="list-style-type: none"> The disease is highly contagious (contact with vesicles and fluid). Affected patients are communicable until scabs are healed over. 	<ul style="list-style-type: none"> Removal of clothing and self-decontamination with water may be considered in situations of gross exposures. 	<ul style="list-style-type: none"> Patients must be quarantined and kept in isolation.
Tularemia <ul style="list-style-type: none"> The bacteria <i>Francisella tularensis</i> typically causes disease in animals. Humans may be infected by handling fluids from diseased animals or through the bite of infected deer flies or ticks. 	<ul style="list-style-type: none"> The disease is characterized by inflammation and necrosis in the lungs, throat, eyes and skin (progressing seven to fourteen days). While initial diagnosis is generally difficult to confirm, patients may present with fever, chills, headache, non-productive cough, muscle pain and pneumonia. Cutaneous ulcers can eventually progress to secondary pleuropulmonary infections. 	<p>Inhalation of tularemia is the most deadly route of exposure.</p> <p><i>Person-to-person transmission does not occur.</i></p>	<ul style="list-style-type: none"> The risk of re-aerosolization of the bacteria is low. Removal of clothing and decontamination with soap and water may be considered in situations of gross exposures. 	<ul style="list-style-type: none"> Routine universal precautions should be followed.



BIOLOGICAL AGENT DETECTION AND TREATMENT

AGENT	DETECTION	TREATMENT
Anthrax	I: 1-6 days of flu-like symptoms. Possible widened mediastinum. Gram stain (gram-positive rod) of blood and blood culture (late).	<ul style="list-style-type: none"> • TBI: treatment may be delayed 24 hours until cultures from incident site available. • Post-exposure prophylaxis (only if instructed by government officials): ciprofloxacin or doxycycline by mouth x eight weeks. • Severe cases: ciprofloxacin, doxycycline or penicillin IV.
Cholera	I: 4 hours – 5 days. Severe gastrointestinal with “rice water” diarrhea.	<ul style="list-style-type: none"> • Oral rehydration with WHO solution or IV hydration. • Tetracycline, doxycycline (dosage as below or 300 mg one time) by mouth for three days. Ciprofloxacin or norfloxacin by mouth for 3 days if resistant strains.
Plague	I: 2-3 days of flu-like symptoms. Chest X-ray: patchy infiltrates or consolidation. Gram strain of lymph node aspirate, sputum, or cerebrospinal fluid (gram negative, non-spore forming rods).	<ul style="list-style-type: none"> • Isolation. • Post-exposure prophylaxis: doxycycline or ciprofloxacin for seven days. • Symptomatic: gentamicin or doxycycline IV for 10-14 days. • Meningitis: chloramphenicol.
Tularemia	I: 2-10 days of flu-like symptoms.	<ul style="list-style-type: none"> • Gentamicin for 10-14 days.
Q Fever	I: 10-14 days of flu-like symptoms.	<ul style="list-style-type: none"> • Most cases self-limited. • Tetracycline or doxycycline by mouth for 5-7 days.
Smallpox	7-17 (avg. 12) days. Later erythematous rash that progresses to pustular vesicles. Electron or light microscopy of pustular scrapings. PCR.	<ul style="list-style-type: none"> • Isolation. • Post-exposure prophylaxis: vaccinia vaccine scarification and vaccinia immune globulin IM.
Viral Encephalitides	1-6 days flu-like symptoms. Immunoassay.	<ul style="list-style-type: none"> • Supportive.
Viral Hemorrhagic Fevers	4-21 days flu-like symptoms. Easy bleeding and petechiae. Enzyme immunoassay.	<ul style="list-style-type: none"> • Isolation. • Supportive care. • Some respond to ribavirin.
Botulism	1-5 days. Descending bulbar, muscular and respiratory weakness.	<ul style="list-style-type: none"> • Supportive. • Post-exposure prophylaxis: toxoid. • Symptomatic: anti-toxin.
Staphylococcus Enterotoxin B	3-12 hours flu-like symptoms.	<ul style="list-style-type: none"> • Supportive.
Ricin	18-24 hours flu-like symptoms, pulmonary edema, and severe respiratory distress.	<ul style="list-style-type: none"> • Supportive.
T-2 Mycotoxins	2-4 hours. SINK, respiratory and GI symptoms.	<ul style="list-style-type: none"> • Supportive.

CHEMICAL AGENTS REFERENCE CHART

Chemical	Symptoms	Treatment
Nerve Agents: Tabun Sarin Soman VX (V Agents)	<ul style="list-style-type: none"> • Salivation (spit) • Lacrimation (tears) • Urination • Defecation • Gastric-Emptying (vomiting) • Pinpoint pupils (everything looks dark) • Seizures 	<ul style="list-style-type: none"> • Atropine – Initial dose 2 mg. Additional doses until symptoms resolved (will not reverse miosis). • Pralidoxime chloride – 1 gram IV over 20-30 minutes. • Benzodiazepines – for seizure control or to prevent seizures in severely intoxicated patients.
Cyanides: Hydrogen Cyanide Cyanogen Chloride	<ul style="list-style-type: none"> • Non-specific: anxiety, hyperventilation, respiratory distress. • Cherry-red skin, though classic, is seldom seen. • Lactic acidosis and increased concentration of venous oxygen. 	<ul style="list-style-type: none"> • Cyanide Antidote Kit. • Amyl nitrite ampul first aid until IV established. Crush and place inside mask of Bag-Valve-Mask (BVM); 15 seconds of inhalation, then 15 second break; repeat until IV established. • Sodium nitrite – 300 mg over 2-4 minutes. • Sodium thiosulfate – 12.5 g over 5 minutes.
Vesicants: Mustard Lewisite	<ul style="list-style-type: none"> • Redness and blisters. • Inhalation injury may result in respiratory distress. • Leukopenia to pancytopenia. 	<ul style="list-style-type: none"> • Decon within 2 minutes exposure ideal. • Topical antibiotics. • Systemic analgesics. • Fluid balance (do not overhydrate; not a thermal burn). • Bronchodilators and steroids for pulmonary symptoms, only if Lewisite is the poison, then BAL is the antidote.
Pulmonary Intoxicants: Chlorine Phosgene	<ul style="list-style-type: none"> • Delayed onset of non-cardiogenic pulmonary edema. 	<ul style="list-style-type: none"> • Treat hypertension with fluid; no diuretics. • Ventilate with positive end expiratory pressure (PEEP). • Bronchodilators. • Patient exposed to liquid phosgene can gas-off and contaminate others. • Patient exposed to phosgene or chlorine gas do NOT pose a risk of secondary contamination. • No specific antidote for phosgene or chlorine.
Riot Control Agents: Pepper Spray Mace Tear Gas	<ul style="list-style-type: none"> • Ear, nose, mouth and eye irritation. 	<ul style="list-style-type: none"> • Irrigate. • Treat bronchospasm with bronchodilators and steroids, as needed.



CHEMICAL DECONTAMINATION CHART

The following table highlights specific considerations when assessing situations involving chemical decontamination.

TYPE OF CHEMICAL AGENT	SYMPTOMS OF EXPOSURE	DECONTAMINATION
Corrosive <ul style="list-style-type: none"> • Acids • Alkaline (Caustic, Bases) 	<ul style="list-style-type: none"> • Chemical burns • Tissue damage • Sloughing of skin • Respiratory irritation • Eye and mucous membrane irritation/ damage 	<ul style="list-style-type: none"> • Remove clothing, if contaminated. • Wash residual agent from skin with copious amounts of water. • If patient is ambulatory and conscious, have patient self cleanse using decontamination shower facility.
Organic Solvents <ul style="list-style-type: none"> • Xylene • Toluene • Alcohol • Phenol • MEK 	<ul style="list-style-type: none"> • Possible chemical burns and skin damage • Eye and mucous membrane irritation • Pulmonary irritation • Dizziness 	<ul style="list-style-type: none"> • Remove clothing, if contaminated. • Wash residual agent from skin with copious amounts of water. • If patient is ambulatory and conscious, have patient self cleanse using decontamination shower facility.
Vesicants <ul style="list-style-type: none"> • Chemotherapy Drugs • Nitrogen Mustard • Sulfur Mustard 	<ul style="list-style-type: none"> • Vesicles and blisters • Sloughing of skin • Respiratory distress • Temporary blindness • Nausea and vomiting 	<ul style="list-style-type: none"> • Remove clothing, if contaminated. • Wash residual agent from skin with copious amounts of water. • If patient is ambulatory and conscious, have patient self cleanse using decontamination shower facility.
Toxic Substances <ul style="list-style-type: none"> • Formaldehyde • Glutaraldehyde • Chemotherapy Drugs 	<ul style="list-style-type: none"> • Pulmonary irritation • Eye irritation • Mucous membrane irritation • Shortness of breath • Dizziness • Nausea 	<ul style="list-style-type: none"> • Fully decontaminate with water. • Remove clothing and jewelry to preclude secondary chemical exposure to healthcare workers, due to vapor off gassing.
Lacrimators Tear producing chemicals, such as pepper spray and tear gas.	<ul style="list-style-type: none"> • Severe eye and mucous membrane irritation 	<ul style="list-style-type: none"> • Flush eyes with copious amounts of sterile water or saline solution.
Nerve Agents <ul style="list-style-type: none"> • Organophosphates and carbonates • Pesticides • Tabun • Sarin 	<ul style="list-style-type: none"> • Nerve agent chemicals generally produce the biological inhibition of enzyme AChE and the accumulation of neurotransmitter ACh, causing hyperactivity in organs • Seizures • Loss of consciousness • Fatigue • Memory loss • Tacharrhythmias • Muscle twitching, weakness • Flaccid paralysis 	<ul style="list-style-type: none"> • Fully decontaminate with soap and water. • Remove clothing and jewelry to preclude secondary chemical exposure to healthcare workers, due to vapor off gassing.

TYPE, DURATION AND ISOLATION OF PRECAUTIONS

INFECTION/CONDITION	PRECAUTION	ACTION
Measles (rubeola)	Airborne	Susceptible HCWs should not enter room if immune care providers are available; no recommendations for face protection of immune HCS; no recommendation for type of face protection for susceptible HCWs, i.e., mask or respirator. For exposed susceptible, post-exposure vaccine within 72 hrs. or immune globulin within 6 days when available. Place exposed susceptible patients on Airborne Precautions and exclude susceptible healthcare personnel from duty from day 5 after first exposure to day 21 after last exposure, regardless of post exposure vaccine.
Meningitis – Aseptic (nonbacterial or viral; also see enteroviral infections)	Standard	Contact for infants and young children.
Meningitis – Bacterial, gram-negative enteric, in neonates	Standard	
Meningitis Fungal	Standard	
Meningitis Haemophilus Influenza, type B known or suspected	Droplet	24 hours after initiation of effective therapy.
Meningitis Listeria Monocytogenes (See Listeriosis)	Standard	
Neisseria Meningitides (Meningococcal) known or suspected	Droplet	See meningococcal disease below.
Streptococcus Pneumonia	Standard	
M. Tuberculosis	Standard	Concurrent, active pulmonary disease or draining cutaneous lesions may necessitate addition of contact and/or airborne precautions; for children, airborne precautions until active tuberculosis ruled out in visiting family member (see tuberculosis below).
Other diagnosed bacterial	Standard	
Meningococcal Disease: sepsis, pneumonia, meningitis	Droplet	24 hours after initiation of effective therapy. Post-exposure chemoprophylaxis for household contacts, HCWs exposed to respiratory secretions; post-exposure vaccine only to control outbreaks.
Multidrug-Resistant Organisms (MDROs), infection or colonization (e.g. MRSA, VRE, VISA/VRSA, ESBLs, resistant S. pneumonia)	Standard & Contact	MDROs judge by the infection control program, based on local, state, regional, or national recommendations, to be of clinical and epidemiologic significance. Contact precautions recommended in settings with evidence of ongoing transmission, acute care settings with increased risk for transmission or wounds that cannot be contained by dressings. See recommendations for management options in Management of Multidrug-resistant Organisms In Healthcare Settings, 2006. Contact state health department for guidance regarding new or emerging MDRO.
Mycoplasma Pneumonia	Droplet	Duration of Illness (with wound lesions, DI means until wounds stop draining).
Necrotizing Enterocolitis	Standard	Contact Precautions when cases clustered temporally.
Parainfluenza Virus Infection, respiratory in infants and young children	Contact	Duration of illness (with wound lesions, DI means until wounds stop draining). Viral shedding may be prolonged in immunosuppressed patients. Reliability of antigen testing to determine when to remove patients with prolonged hospitalizations from Contact Precautions uncertain.
Parvovirus B19 (erythema infectiosum)	Droplet	Maintain precautions for duration of hospitalization when chronic disease occurs in an immunocompromised patient. For patients with transient aplastic crisis or red-cell crisis, maintain precautions for 7 days. Duration of precautions for immunosuppressed patients with persistently positive PCR not defined, but transmission has occurred.
Pediculosis (lice)	Contact	Until 24 hours after treatment.
Pertussis (whooping cough)	Droplet	Until 5 days after treatment. Single patient room preferred. Cohorting an option. Post exposure chemoprophylaxis for household contacts and HCWs with prolonged exposure to respiratory secretions. Recommendations for Tdap vaccine in adults under development.



INFECTION/CONDITION	PRECAUTION	ACTION
Pinworm Infection (Enterobiasis)	Standard	
Plague (Yersinia pestis) Bubonic Pneumonic	Standard, Droplet	Until 48 hrs after initiation of effective therapy.
Pneumonia Adenovirus	Droplet, Contact	Duration of illness. Outbreaks in pediatric and institutional settings reported. In immunocompromised hosts, extend duration of Droplet and Contact Precautions due to prolonged shedding of virus.
Haemophilus Influenza, Type B Adults Infants & children	Standard, Droplet	Duration for 24 hours after initiation of effective therapy.
Legionella spp.	Standard	
Meningococcal	Duration	Duration for 24 hours after initiation of effective therapy. See meningococcal disease above.
Mycoplasma (primary atypical pneumonia)	Duration	
Pneumococcal Pneumonia	Standard	Use droplet precautions if evidence of transmission within a patient care unit or facility.
Pneumocystis Jiroveci (pneumocystis carinii)	Standard	Avoid placement in the same room with an immunocompromised patient.
Streptococcus, Group A Adults Infants and young children	Droplet Droplet	Duration for 24 hours after initiation of effective therapy. See streptococcal disease (group A streptococcus) below. Contact precautions if skin lesions present. Duration for 24 hours after initiation of effective therapy. Contact precautions if skin lesions present.
Poliomyelitis	Contact	Duration for 24 hours after initiation of effective therapy.
Psittacosis (ornithosis Chlamydia psittaci)	Standard	Not transmitted person to person.
Q Fever	Standard	
Rabies	Standard	Person to person transmission rare; transmission via corneal, tissue and organ transplants have been reported. If patient/resident has bitten another individual or saliva has contaminated an open wound or mucous membrane, wash exposed area thoroughly and administer post exposure prophylaxis.
Respiratory Syncytial Virus Infection, in infants, young children and immunocompromised adults	Contact	Duration for 24 hours after initiation of effective therapy. Wear mask according to Standard Precautions. In immunocompromised patients, extend duration of contact precautions due to prolonged shedding. Reliability of antigen testing to determine when to remove patients with prolonged hospitalizations from contact precautions uncertain.
Rheumatic Fever	Standard	Not an infectious condition.
Rhinovirus	Droplet	Duration for 24 hours after initiation of effective therapy. Droplet most important route of transmission. Outbreaks have occurred in NICUs and LTCFs. Add Contact Precautions if copious moist secretions and close contact likely to occur (e.g. young infants).
Rickettsial Fevers, Tickborne (rocky mountain spotted fever, tickborne typhus fever)	Standard	Not transmitted from person to person except through transfusion, rarely.
Ringworm (dermatophytosis, dermatomycosis, tinea)	Standard	Rarely, outbreaks have occurred in healthcare settings, (e.g., NICU, rehabilitation hospital). Use contact precautions for outbreak.
Ritter's Disease (staphylococcal scalded skin syndrome)	Contact	Duration of illness. See staphylococcal disease, scalded skin syndrome below.
Rocky Mountain Spotted Fever	Standard	Not transmitted from person to person (except through transfusion, rarely).
Roseola Infantum (exanthema subitum; caused by HHV-6)	Standard	

TYPE, DURATION AND ISOLATION OF PRECAUTIONS

INFECTION/CONDITION	PRECAUTION	ACTION
Rubella (German measles (also see congenital rubella))	Droplet	Duration of 7 days after onset of rash. Susceptible HCWs should not enter room if immune caregivers are available. No recommendation for wearing face protection (e.g., a surgical mask) if immune. Pregnant women who are not immune should not care for these patients. Administer vaccine within three days of exposure to non-pregnant susceptible individuals. Place exposed susceptible patient on Droplet Precautions; exclude susceptible healthcare personnel from duty from day 5 after first exposure to day 21 after last exposure, regardless of post-exposure vaccine.
Scabies	Contact	Duration for 24 hours after initiation of effective therapy.
Scalded Skin Syndrome, Staphylococcal	Contact	Duration of illness. See staphylococcal disease, scalded skin syndrome below.
Severe Acute Respiratory Syndrome (SARS)	Airborne, Contact, Droplet	Duration of illness plus 10 days after resolution of fever, provided respiratory symptoms are absent or improving. Airborne Precautions preferred; D if AIIR unavailable. N95 or higher respiratory protection; surgical mask if N95 unavailable; eye protection (goggles, face shield); aerosol-generating procedures and "supershedders" highest risk for transmission via small droplet nuclei and large droplets Vigilant environmental disinfection (see www.cdc.gov/ncidod/sars).
Staphylococcal Disease (S aureus) Skin, wound, or burn		
Major	Contact	Duration of illness. No dressing contains drainage adequately. Dressing covers and contains drainage adequately.
Minor or limited	Standard	
Enterocolitis	Standard	Use Contact Precautions for diapered or incontinent children for duration of illness.
Multidrug-Resistant (see multidrug resistant organisms) Pneumonia	Standard	
Scalded Skin Syndrome	Contact	Duration of illness. Consider healthcare personnel as potential source of nursery, NICU outbreak.
Toxic Shock Syndrome	Standard	
Scarlett Fever in infants and young children	Droplet	Duration for 24 hours after initiation of effective therapy.
Streptococcal Disease (group B streptococcus), neonatal	Standard	
Strongyloidiasis	Standard	
Syphilis		
Latent (tertiary) and seropositivity without lesions		
Skin and mucous membrane, including congenital, primary, secondary	Standard Standard	
Tapeworm Disease		
Hymenolepis Nana	Standard	Not transmitted person to person. Not transmitted person to person.
Taenia Solium (pork)	Standard	Not transmitted person to person.
Other	Standard	
Tetanus	Standard	Not transmitted person to person.
Trichuriasis (whipworm disease)	Standard	



INFECTION/CONDITION	PRECAUTION	ACTION
<p>Tuberculosis M. Tuberculosis <i>Extrapulmonary, draining lesion</i></p> <p>Extrapulmonary, no draining lesion, meningitis</p> <p>Pulmonary or laryngeal disease, confirmed</p> <p>Pulmonary or laryngeal disease, suspected</p>	<p>Airborne, Contact Standard Airborne Airborne</p>	<p>Discontinue precautions only when patient is improving clinically, and drainage has ceased or there are three consecutive negative cultures or continued drainage. Examine for evidence of active pulmonary tuberculosis.</p> <p>Examine for evidence of pulmonary tuberculosis. For infants and children, use airborne precautions until active pulmonary tuberculosis in visiting family members ruled out.</p> <p>Discontinue precautions only when patient on effective therapy is improving clinically and has three consecutive sputum smears negative for acid-fast bacilli collected on separate days (MMWR 2005; 54: RR-17) http://www.cdc.gov/mmwr.</p> <p>Discontinue precautions only when the likelihood of infectious TB disease is deemed negligible, and either 1) there is another diagnosis that explains the clinical syndrome or 2) the results of three sputum smears for AFB are negative. Each of the three sputum specimens should be collected 8-24 hrs apart, and at least one should be an early morning specimen.</p>
<p>Tularemia <i>Draining lesion Pulmonary</i></p>	<p>Standard Standard</p>	<p>Not transmitted person to person. Not transmitted person to person.</p>
<p>Typhoid (salmonella typhi) Fever (see gastroenteritis)</p>		
<p>Typhus</p> <p>Rickettsia Prowazekii (epidemic or Louse-borne typhus) Rickettsia Typhi</p>	<p>Standard Standard</p>	<p>Transmitted from person to person through close personal or clothing contact. Not transmitted person to person.</p>
<p>Varicella Zoster</p>	<p>Airborne, Contact</p>	<p>Duration until lesions are dry and crusted. Susceptible HCWs should not enter room if immune caregivers are available. No recommendation for wearing face protection (e.g., a surgical mask or respiratory for susceptible HCWs. In immunocompromised host with varicella pneumonia, prolong duration of precautions for duration of illness. Post-exposure prophylaxis: provide post-exposure vaccine ASAP but within 120 hours; for susceptible exposed persons for who vaccine is contraindicated (immunocompromised person, pregnant women, newborns whose mother's varicella onset is <5 days before delivery or within 48 hrs after delivery) provide VZIG, when available, within 96 hrs; if unavailable, use IVIG, use airborne precautions for exposes susceptible persons and exclude exposed susceptible healthcare workers beginning 8 days after first exposure until 21 days after last exposure or 28 if received VZIG, regardless of post exposure vaccination.</p>
<p>Viral Hemorrhagic Fevers due to Lassa, Ebola, Marburg, Crimean-Congo fever viruses</p>	<p>Standard, Droplet, Contact</p>	<p>Duration of illness. Single patient room preferred. Emphasize: 1) use of sharps safety devices and safe work practices, 2) hand hygiene, 3) barrier protection against blood and body fluids upon entry into the room (single gloves and fluid resistant or impermeable gown, face/ eye protection with masks, goggles, or face shields), 4) appropriate waste handling. Use N-95 or higher respirators when performing aerosol-generating procedures. Largest viral load in final stages of illness when hemorrhage may occur; additional PPE, including double gloves, leg and shoe coverings may be used, especially in resource-limited settings where options for cleaning and laundry are limited. Notify public health officials immediately if Ebola is suspected. Also see table 3 for Ebola as a bioterrorism agent.</p>
<p>Wound Infections <i>Major</i></p> <p>Minor or limited</p>	<p>Contact Standard</p>	<p>Duration of illness, no dressing or dressing does not contain drainage adequately. Dressing covers and contains drainage adequately.</p>

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