

**CHAPTER 16**

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**HEALTH & MEDICAL****Emergency Support Function (ESF)-8****OVERVIEW:**

**Primary Agency:** Florida Department of Health

**Support Agencies:** Agency for Health Care Administration, American Red Cross, Department of Agriculture and Consumer Services, Department of Business and Professional Regulation, Department of Elder Affairs, Department of Environmental Protection, Department of Law Enforcement, Department of Military Affairs, Department of Children & Families, Florida Wing Civil Air Patrol, Florida Funeral Directors Association, U.S. Department of Energy

**PURPOSE:**

**The Florida Department of Health (DOH) has been designated as the lead state agency for ESF-8** and, in this capacity coordinates the State's health, medical and limited social service assets in the event of a major natural or man-made disaster. ESF-8 operates within the Florida Division of Emergency Management in support of county emergency management or regional Multi-Agency Coordination Groups (MACS). ESF-8 operations are in consonance with the National Incident Management System (NIMS). To accomplish this goal ESF-8 oversees the emergency management functions of preparedness, recovery, mitigation and response with all agencies and organizations that carry out health or medical services.

ESF-8 coordinates and manages overall public health response, triage, treatment and transportation of victims of a disaster; assistance in the evacuation of victims out of the disaster area after the event; immediate support to hospitals and nursing homes; provision of emergency behavioral health crisis counseling for individuals and the community and the re-establishment of all health and medical systems. Assistance in pre-event evacuation may also be provided whenever patients or clients of the state and DOH are affected, or pre-established plans for any health care institution have failed.

**RESPONSIBILITIES:**

The following ESF-8 services provide the framework upon which the Department supports any emergency or disaster incident occurring in Florida:

- a. Assessment of health and medical needs
- b. Coordination of disease control/epidemiology investigation response
- c. Assistance to health care agencies and county special needs shelters in locating and providing health/medical care personnel
- d. Assistance to and coordination of emergency medical services (EMS) (pre-hospital)
- e. Coordination of patient evacuation
- f. Coordination with the Agency for Health Care Administration (AHCA) to ensure in-hospital and nursing home care is maintained
- g. Assurance of food and drug safety, and availability of certain food and drugs
- h. Coordination of critical incident stress debriefing (CISD) for all responders, health and safety
- i. Coordination of radiological/chemical/biological hazard surveillance and control
- j. Coordination of public health information
- k. Coordination of environmental health issues to include: vector monitoring/control, water potability, and disposal of sewage, waste water and solid waste.
- l. Assurance of victim identification/mortuary service

**COMMON INTERFACE:**

**All responding/deployed staff report to the Incident/Unified Commander (during a state wide event the IC maybe located at the State Emergency Operations center – SEOC). Refer to Page 18-10:**

- Assess for needed public health and Emergency Medical Services (EMS) activities.
- Establish communications with County (local) ESF-8.
- Establish communications with State DOH Duty Officer.
- Alert hospital system to possible influx of patients (with ACHA).
- Determine individual hospital operational status (with ACHA).

**EMS INTERFACE:****Patient Care:**

- Identify gaps in needs and services for patients and systems.
- Assure patient care tasks completed.
  - Triage, treatment, decontamination, transport, patient tracking.
- Work with ACHA to determine individual hospital operational status.

**Communicate Identified Resource Needs**

- Inform Incident Commander
- Inform County/State EOC (ESF-8)

(See Chapter 14 for info on Catastrophic Incident Response Plan)

**PUBLIC HEALTH INTERFACE:****Assist Planning or Operation Section:**

- Provide advice regarding chemical, biological, and radiological agents, personal protective equipment (PPE), evacuation, sheltering-in-place, & decontamination.
- Provide advice to responders on ~~Assist in~~ entry and sample collection.

**Receive Sample Agents if Appropriate:**

- Advise responders on appropriate packaging and documentation.
- Arrange for transportation to appropriate laboratory.
- Provide advance notification to lab.

**Identify Requirements for Specialists/Resources:**

- Personnel to record contact information (Epidemiology)
- Disaster Community Health Assessment Teams (DCHAT)
- Disaster Medical Assistance Teams (DMAT)
- Disaster Mortuary Operational Response (DMORT & FEMORS)
- Environmental Health Specialists
- Epidemiology/surveillance
- Laboratories
- Radiation Control
- Regional Emergency Response Advisors (RERA)

- Strategic National Stockpile(SNS)
- Agents

### **Communicate Identified Resource Needs**

- Incident Commander
- Inform County/State EOC (ESF-8)

### **RESOURCES:**

**Personnel to record contact information:** During an event it is important to note the people who come into contact with a particular agent or people who are exposed. A representative of the health department can help record the names, addresses, and telephone numbers of these persons. Coordinate these lists with those of law enforcement to ensure complete coverage. If subsequent laboratory analysis indicates a harmful agent was present, this information is helpful to authorities who will want to contact the people and give them information, and possibly provide them with vaccine/prophylaxis, which will prevent illness. They will have an opportunity to see their physician and obtain the specific medication or be alerted as to where treatment is available.

**Disaster Community Health Assessment Teams (DCHAT):** The Office of Emergency Operations has trained and equipped a small number of teams for deployment to disaster sites for the purpose of gathering statistically valid and reliable data on the health and medical status of disaster victims. The information is gathered by interview using a standardized survey instrument. Individuals surveyed are in the disaster site location as determined by defined boundaries and are selected using random sampling techniques. The data is gathered and shared with local health department staff, then electronically transmitted to a password protected website where it can be viewed by health planning and response personnel from local to state levels to identify needs and validate resource requests. When a DCHAT is deploys, the team will work under the direction of the requesting County Health Department Director or Administrator.

**Disaster Medical Assistance Teams (DMAT):** Organized and funded by the U. S. Department of Homeland Security. The teams consist of physicians, nurses, paramedics and other allied health professionals who

voluntarily participate in training activities geared to providing health and medical care under austere conditions. There are six teams in Florida fully trained and equipped to respond. The teams are part of the National Disaster Medical System (NDMS) and are normally deployed to major disasters throughout the nation resources may be requested through State ESF-8.

**Disaster Mortuary Operational Response (DMORT/FEMORS):** In the case of a mass fatality incident, there may be a need for the activation of the a Disaster Mortuary Operational Response (DMORT) or a Florida Emergency Mortuary Response System. A DMORT has been established for each region of the United States. Region IV, which is headquartered in Atlanta and serves the southeastern United States, has one team. DMORTs are part of the National Disaster Medical Service (NDMS). In Florida, the medical examiner system is placed within the Department of Law Enforcement. The Office of Emergency Operations will request deployment of a DMORT in Florida when necessary through Region IV, US Public Health Service. This request will be made after coordinating with the Department of Law Enforcement. FEMORS is a State of Florida sponsored group of volunteer mortuary technicians and morticians who can assist local medical examiners and funeral homes. FEMORS is also requested through State ESF-8

**Environmental Health Specialists:** Important elements of environmental health include regulation of certain food service operations, investigations of unusual diseases of an environmental origin and regulation of certain drinking water facilities. Terrorist could introduce a chemical or biological agent in our food and water supplies. An environmental health epidemiologist can coordinate surveillance and investigation of food and waterborne illnesses whether naturally occurring or initiated by man.

**Epidemiology/Surveillance:** When necessary, the Bureau of Epidemiology and/or County Health Departments will deploy a team of epidemiologists in response to a disease outbreak of unknown origin, including acts of bio-terrorism. Epidemiologists are disease detectives, who collect and analyze information on those persons exposed and ill (surveillance), investigate cases, collect laboratory specimens, and generate reports. Epidemiologists contribute to an emergency response providing lists of cases and exposed persons, contacts, persons needing

laboratory testing, prophylaxis, vaccination, or treatment, persons needing isolation or quarantine, Also, epidemiologists make recommendations on how to control a disease for emergency response responsible, health care providers and the general public. The state epidemiologists usually work closely with epidemiologists from the Centers for Disease Control and Prevention in Atlanta.

**Laboratories:** The Bureau of Laboratories has three major laboratories located in Jacksonville, Tampa and Miami; with a branch lab in Pensacola. In addition to the primary public health services provided, these labs have capacity to identify bioterrorism agents. The Pensacola branch lab also has the capability to identify bioterrorism agents. The main laboratories have received extra funding to upgrade services and provide faster reporting. In some circumstances, the Bureau will deploy teams of scientists to the disaster site to assist in sample gathering and on site analysis.

**Regional Emergency Response Advisors (RERA):** The Office of Emergency Operations has placed a regional advisor in each of the seven domestic security task force regions. The RERA is assigned to work directly for with the Regional Health Co-Chair as assigned by the Regional Domestic Security Task Force. The advisors respond to emergencies within their regions, providing assistance and advice as needed to the county health departments and local responders. During major emergency activation's, State ESF-8 may request regional advisors to assist local authorities by providing additional clarifying information and facilitate acquisition of more resources. Advisors may manage health and medical assets brought to the disaster site from other areas of the state. RERAs are often capable of assisting HAZMAT teams to collect and analyze samples. Advisors also assist in planning and training activities. All of the RERA's serve as a member of the Department of Environmental Protection, Bureau of Emergency Response's Emergency Response Team.

**Radiation Control:** The Department's Bureau of Radiation Control is the primary state responder to all radiological incidents and emergencies. This includes unexpected radiation releases from nuclear power plants, transportation accidents, lost or stolen radioactive sources, contamination of a facility or the environment, and radiological exposures from a terrorist

event. The Bureau also provides training to first responders on radiological accidents and weapons of mass destruction. There are four major types of incidents. The first is a transportation accident involving radiological materials such as nuclear medicine radiopharmaceuticals. The second type would be a very unusual incident at nuclear power plant. The monitoring of nuclear power plants is very extensive and the likelihood of a significant radiation release that would affect human health is very small. A third type would be a nuclear weapons detonation either an improvised device or a stolen military device. The fourth type would be the dispersal of radiological material via a non-explosive means or from an explosion ('dirty bomb').

**Strategic National Stockpile (SNS):** The U.S. Centers for Disease Control and Prevention (CDC) has developed a number of stockpiles, containing antibiotics, antidotes, medical supplies and equipment and certain controlled substances. A stockpile can be deployed to Florida when needed to respond to an attack of chemical, radiological or biological terrorism incident. The DOH Office of Emergency Operations, in conjunction with the DOH Bureau of Pharmacy is responsible for requesting the SNS when needed and for managing the receipt, repackaging and distribution of the contents to treatment sites. There are also small stockpiles of antidotes maintained at the regional level.

### **HOSPITALS:**

The priorities in a disaster are to:

- Protect current patients, staff and faculty
- Decontaminate and provide care to contaminated patients presenting to facility
- Continue providing essential healthcare services

### **Examples for Activation Levels (Varies by Hospital):**

- LEVEL 1: 10-20 casualties (If all critically injured, Level 2)
- LEVEL 2: 20-50 casualties with mixed injuries
- LEVEL 3: 50 or more casualties with mixed injuries

### **Internal Systems:**

Hospitals have developed internal systems to carry out activities that will ensure achieving the major priorities of protecting patients, providing

care to arriving patients, providing environmental protection and providing essential services.

When a large-scale event occurs the hospital(s) will coordinate through the local emergency management system that includes consultation with ESF – 8.

(See Chapter 14 for info on Hospital Response Plan)

## **EVENT – HEALTH FOCUS:**

### **Evaluation (CBRNE)**

- Chemical
- Biological
- Radiological (radioactive material contamination)
- Nuclear (fission/fusion reaction devices)
- Energetic (Explosive)

### **Chemical/Biological Agent or Radiological/Nuclear Event**

- Patient and responder decontamination may be required
- Responders may need PPE

### **Decontamination Issues**

- Request Hazardous Materials Teams and Fire Department- assets.
- Establish alternate off-site facility.
- Direct worried well to alternate facility.

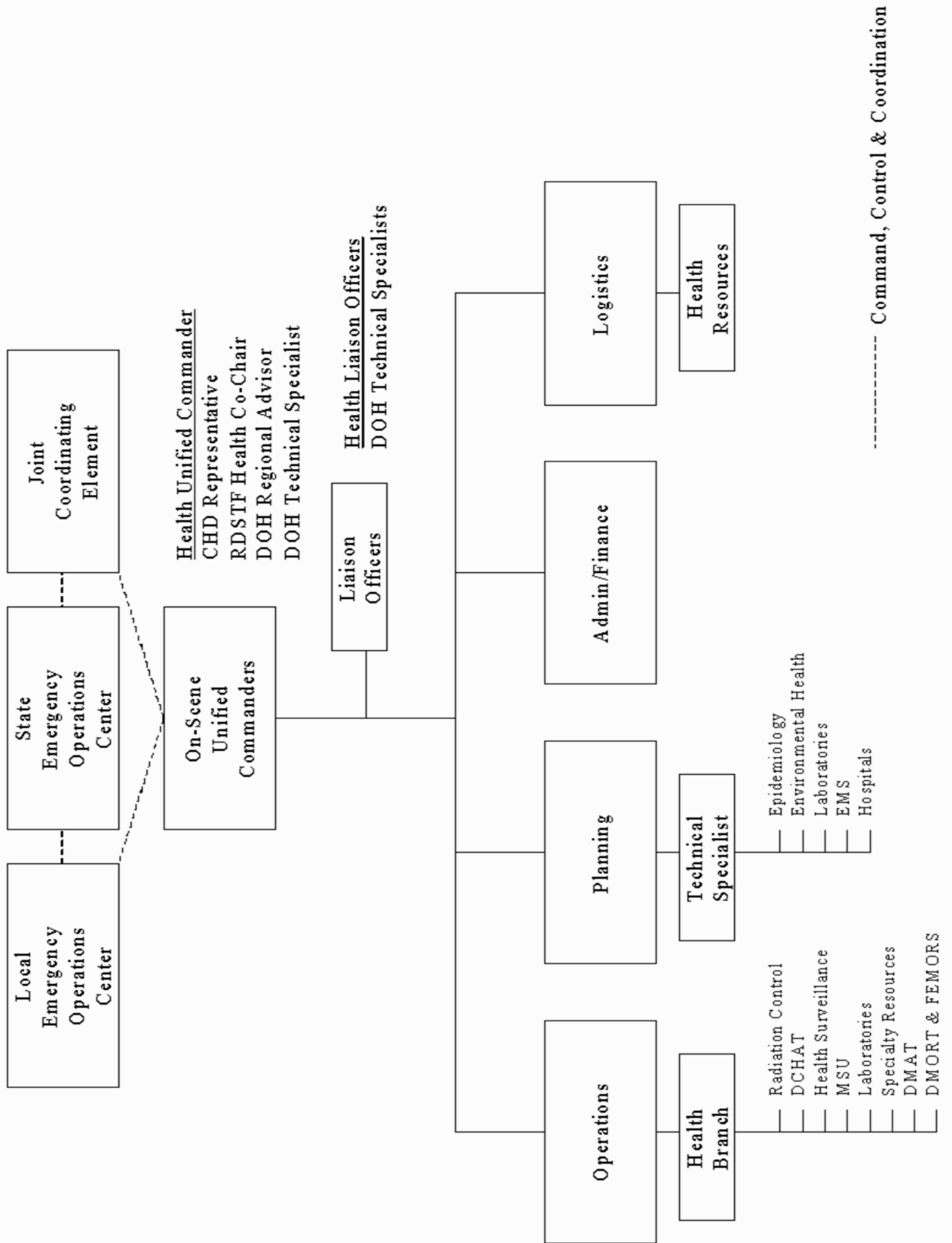
### **Determine Entry and Decontamination Procedure**

- Determine level of PPE required.
  - Universal Precautions generally suffice for biological agents.
- Removal of victims from Exclusion/Hot Zone
- Secure samples and package appropriately (See flow chart)

### **Initiate Decontamination**

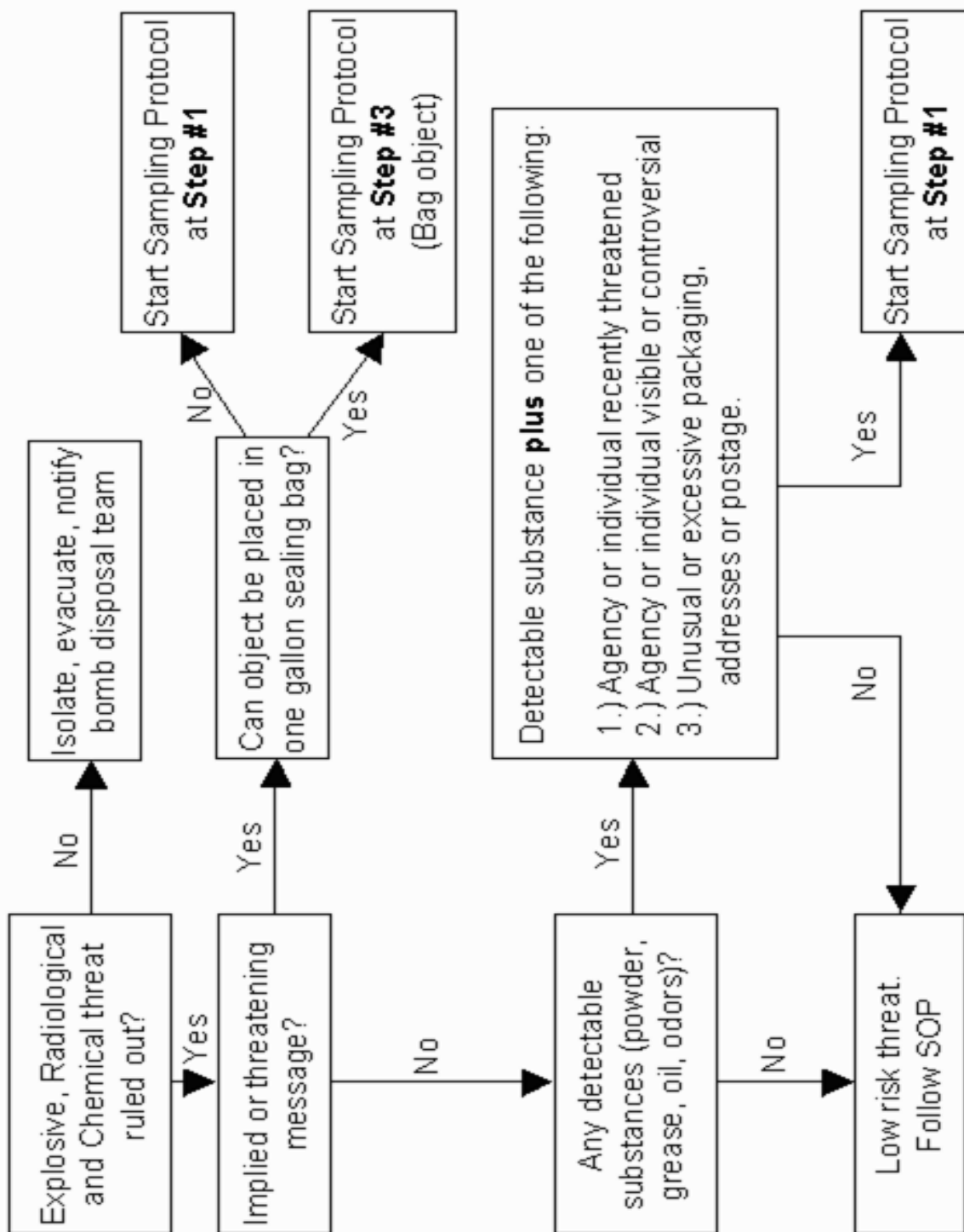
- Provide temporary clothing
- Secure patient's personal
- Send forward to be triaged

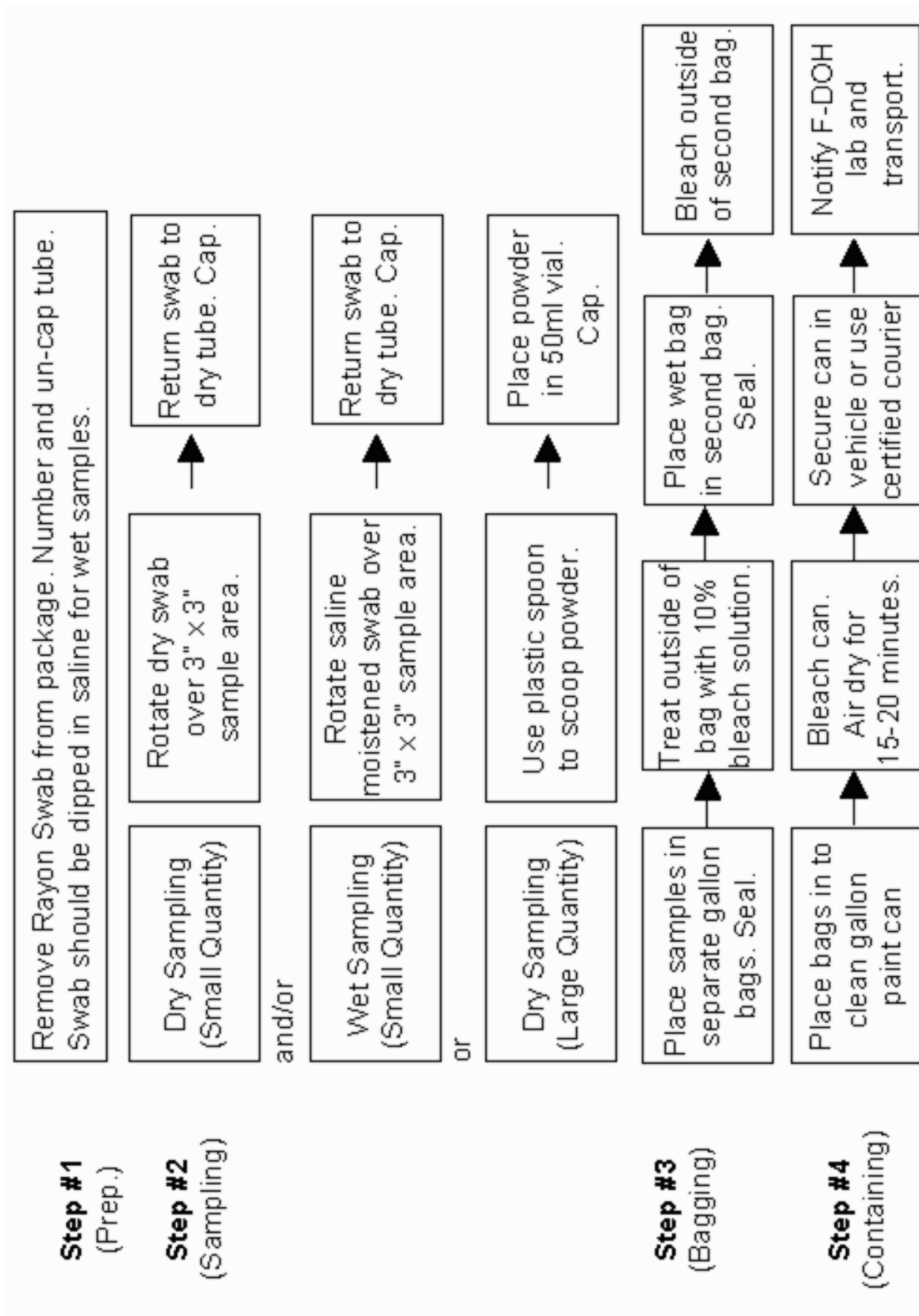
**HEALTH INTERFACE WITH LOCAL COMMAND:**



**BIOLOGICAL THREAT ASSESSMENT PROTOCOL:**

**“White Powder” Threat Assessment & Sampling Protocols**





**WMD Agent Quick Reference Guide**  
**Biological/Chemical Agents**

FL State Warning Point: (800) 320-0519  
 FL Poison Control: (800) 282-3171  
 CDC Bioterrorism Response: (404) 639-0385

BIOLOGICAL AGENTS				
Agent	Incubation	Symptoms	Transmission	Treatment
<b>Bacteria</b>				
<i>Anthrax (inhalational) (cutaneous)</i>	1 - 6 d	Fever/ chills, malaise, fatigue, cough Late: Severe resp. distress, shock Popsicle, fluid-filled vesicle, black eschar	Aerosol Direct	Cipro 400 mg IV BID; OR Doxycycline 200 mg IV, then 100 mg IV BID; OR PCN 4 mill units IV q 4 h Cutaneous same as Inhalational
<i>Brucellasis</i>	1 - 2 mo	Fever/ chills, headache, malaise, arthralgia, myalgia	Aerosol	Doxycycline 200 mg/day PO, PLUS rifampin 600-900 mg/day PO X 6 weeks
<i>Plague (inhalational)</i>	2 - 3 d	Fever/ chills, headache, hemoptysis, toxemia. Late: Resp. failure, shock DIC	Aerosol*	Cipro 400 mg IV BID IV; OR Doxycycline 200 MG IV, then 100 mg IV BID; change to PO after improvement
<i>Tularemia (inhalational)</i>	3 - 5 d	Fever/ chills, headache, malaise	Aerosol	Gentamycin 3-5 mg/kg/day IV X14; OR Cipro 400 mg IV BID until improved; then 750 mg PO BID X14
<i>Q fever</i>	2 - 40 d	Fever/ chills, cough, pleuritic chest pain, GI symptoms	Aerosol	Tetracycline 500 mg PO TID X 7; OR Doxycycline 100 mg PO BID X 7
<b>Viruses</b>				
<i>Smallpox</i>	10 - 12 d	Fever/ chills, headache, malaise, backache	Aerosol*	Supportive Vaccination recommended w/ in 5 days for those exposed
<i>Viral Hemorrhagic Fevers</i>	4 - 21 d	Fever/ chills, headache, malaise, myalgia Late: Bleeding, petechiae, hypotension, shock	Aerosol* Direct	Supportive
<b>Toxins</b>				
<i>Botulinum (inhalational)</i>	Sx begins 12 - 72 hrs	Ptosis, progressive descending bulbar, muscular and resp. weakness; Late: Resp. failure	Aerosol PO	Antitoxin, Supportive
<i>Staphylococcal enterotoxin B (aerosol)</i>	Sx begins 3 - 12 hrs	Fever/ chills, headache, myalgia, cough	Aerosol PO	Supportive
<i>Ricin (inhalational)</i>	Sx begins 4 - 8 hrs	Fever/ chills, cough, malaise, dyspnea Late: Palm. Edema, resp. failure	Aerosol	Supportive
<i>Trichothene mycotoxins (I2)</i>	Sx begins 2-4 hrs	Necrosis and sloughing of affected tissues Late: Prostration, collapse, shock	Aerosol, PO, Dermal, Eye	Supportive



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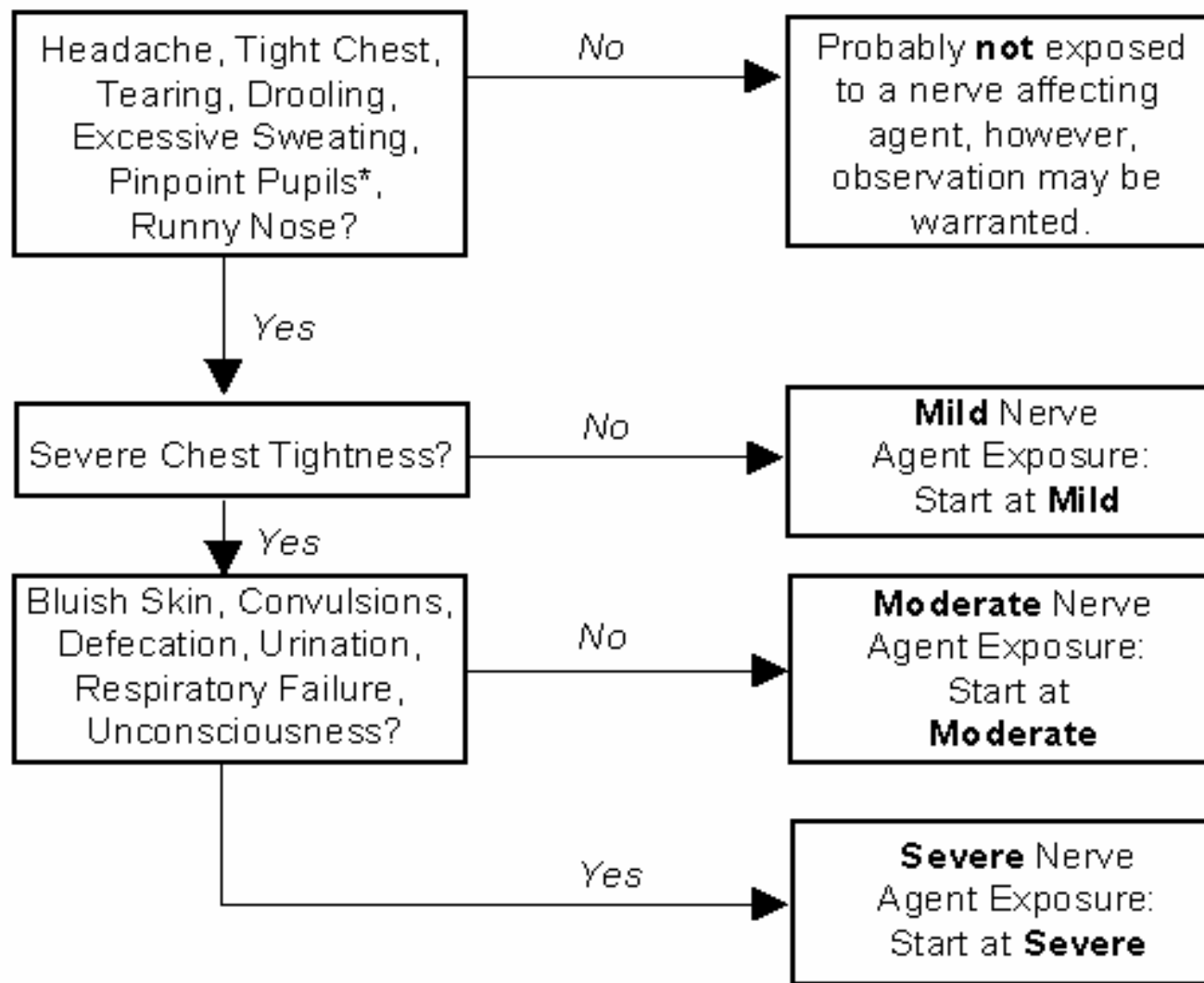
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\* = person-to-person transmission  
 Standard personal protection for all biological WMD includes gloves, gown, and mask. HEPA-mask is recommended for plague, smallpox, and other viral pathogens.

Chemical Agents			
Agent	Onset	Decontamination	Treatment
<b>Nerve Agents</b>			
<i>Tabun (GA)</i>	Salivation Lacrimation (tearing) Urination Defecation	Remove contaminated clothing Flush patients with soap & water solution Flush objects with large amounts of 10% bleach solution	<b>Field:</b> Mark I kit. Inject atropine and 2-PAM C1 (1 - 3 kits), then 15 mg atropine IV; 5 - 10 mg diazepam IV or IM if seizing <b>ER:</b> 15 mg atropine q 5 - 10 min 2 mg q 5 min thereafter AND 1 g 2-PAM C1 IV slowly over 20 - 30 min 5 - 10 mg diazepam IV or IM if seizing
<i>Sarin (GB)</i>	Vapor: seconds Liquid: min - hrs		
<i>Soman (GD)</i>	Gastric disturbances Emesis (vomiting)		
<i>V-Agents (VX)</i>			
<b>Vesicants (Blister Agents)</b>			
<i>Sulfur Mustard (H)</i>	Acts first as a cell irritant then as a cell poison	Remove contaminated clothing Flush patients with soap & water solution Flush objects with large amounts of 10% bleach solution	Immediate Decontamination Supportive Care
<i>Distilled Mustard (HD)</i>	Conjunctivitis, reddened skin, blisters, nasal irritation, inflammation of throat and lungs		
<i>Nitrogen Mustard (HN 1, 3)</i>			
<i>Mustargen (HN 2)</i>	Immediate pain with blisters		
<i>Lewisite (L)</i>	Immediate pain with blisters later - necrosis equivalent to 2 <sup>nd</sup> and 3 <sup>rd</sup> degree burns		
<i>Phosgene Oxime (CX)</i>			
<b>Chemical Asphyxiants (Blood Agents)</b>			
<i>Hydrogen Cyanide (AC)</i>	~30% cyanosis	Remove contaminated clothing Flush patients with soap & water solution Flush objects with large amounts of 10% bleach solution	2 step process 1) 10 ML Sodium Nitrite IV 2) 50 mL Sodium Thiosulfate IV
<i>Cyanogen Chloride (CK)</i>	Patients may appear to be gasping for air		
<i>Arsine (SA)</i>	Seizures prior to death Effect is similar to asphyxiation, but is more sudden		

### Nerve Agent Symptom Assessment

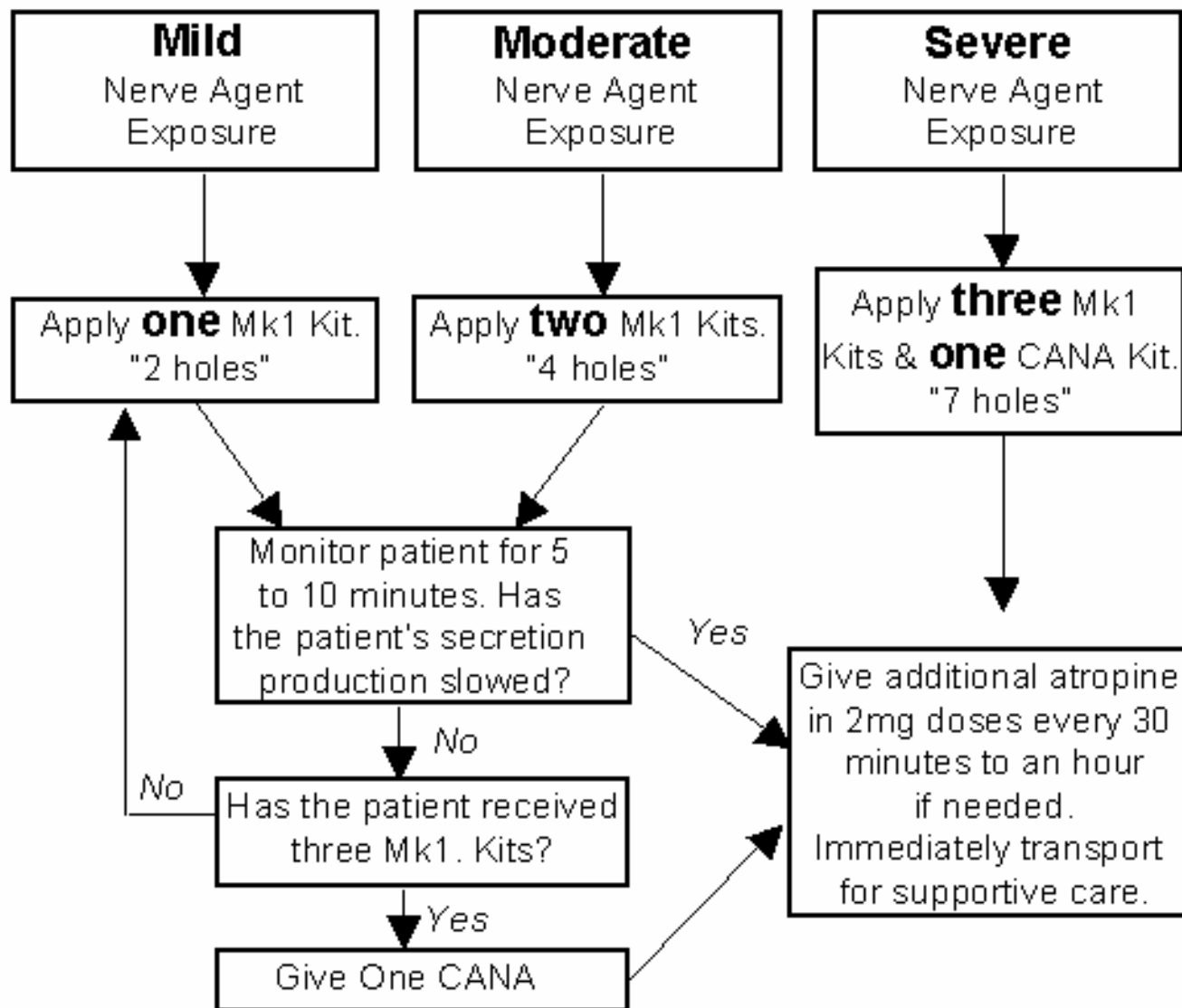
(Check patient symptoms and proceed to treatment page)



\* = Pinpoint pupils **only** occur in vapor nerve agent exposure

Created by the University of South Florida.  
 Modified by the Florida Department of Health.

## Mark I & CANA Nerve Agent Antidote Kit Usage



- 1.) Remove safety cap from **back** end of autoinjector.
- 2.) Firmly press **front** end of autoinjector against meaty part of body, such as back of thigh or buttocks. Watch for bones, buttons and sciatic nerve
- 3.) Hold autoinjector in place for 10 seconds.
- 4.) A maximum of **three** 2-PAM Chloride autoinjectors can be used, however, additional atropine is safe to use.