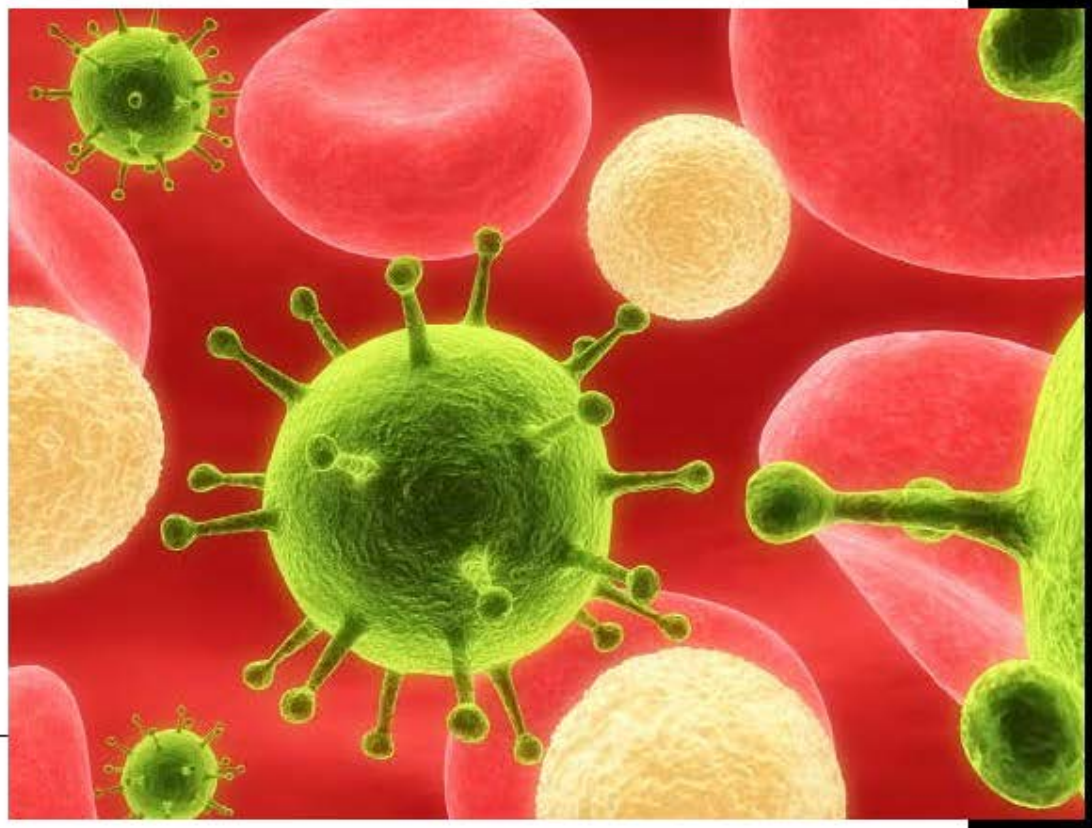

Broward Regional Infectious Disease

and

Pandemic Response Guide

December 2014

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LETTER OF AUTHORITY

These guidelines have been drafted by the _____ agency. The EMS Medical Director, by his/her signature, has approved these protocols as recommendations, which will be applicable to patient care procedures and protocols.

_____, M.D. Agency EMS Director

SECTION 1

The Broward County Regional EMS Infectious Disease/ Pandemic Guide Response

The Broward County Regional EMS Infectious Disease and Pandemic Guideline are designed to offer guidance, continuity, and organization to the delivery of emergency medical care during a significant infectious disease outbreak or pandemic.

The "All Hazard Infectious Disease and Pandemic Response Guideline" provides direction on "best practice" activity in the single patient scenario. By incorporating this behavior into daily practice, we establish the basic principles, which will work in a larger pandemic environment.

We acknowledge the military adage that, "No plan survives first contact with the enemy." Therefore, we offer these guidelines with the caution that they were designed with limited knowledge and imperfect forecasting. They must remain flexible and subject to revision on short notice.

Individual agencies and jurisdictions may implement portions of these guidelines as needed to craft specific policies and procedures. The regional impact of a pandemic, however, requires uniformity of policy and action, which we have attempted to outline here.

In managing infectious disease patients, whether a single patient or in an extended pandemic environment, the principles of the National Incident Management System (NIMS) must be applied.

The following points are recognized goals of an infectious disease and pandemic incident:

1. Achieve EMS "culture change" by incorporating "best practices" into daily infectious disease operations.
2. Safe, rapid and adequate response to the incident.
3. Adequate Personal Protective Equipment (PPE) to ensure responder safety.
4. Rapid containment to achieve personal safety and patient accountability and to reduce exposures.
5. Maximize utility of available EMS resources.
6. Provide reasonable patient care in the environment of limited resources.
7. Sustain public safety activities during times of prolonged or extended duress.
8. Recover and return to "normal" EMS operations as quickly and safely as possible.
9. Provide emotional and/or psychological support for personnel through Critical incident Stress Management (CISM) or Employee Assistance Program (EAP).
10. In an incident having a multi-agency response or countywide impact proper notification of supervisor, ICO, health department and county warning point needs to be made.

For disease specific information the Control of Communicable Disease Manual (current edition) and CDC should be reviewed. At times of a Pandemic, the World Health Organization (WHO), Centers for Disease Control (CDC) and State Health Department/ESF 8 should be closely monitored.

References:

- Centers for Disease Control (CDC) and Prevention; Healthcare Infection Control Practices
- Pandemic Influenza Risk Management; WHO Interim Guidance
- Association for Professionals in Infection Control and Epidemiology (APIC) Guide to Infection Prevention in Emergency Medical Services

Introduction

Emergency Medical Services (EMS) system responders deliver medical care in many unique and oftentimes dangerous environments. They render care to increasingly mobile populations who potentially have a higher likelihood of having an infectious or emerging disease. In addition to treating accident victims of every nature (vehicular, falls, cuts, burns, and more), they treat the homeless, nursing home patients, trauma victims, and the critically ill with multiple diseases and infections. They have unique concerns such as suspect searches, communal living arrangements, and the need to clean and disinfect their work equipment. Like many other healthcare professionals, they face ever-increasing exposures to infectious diseases.

For the purpose of this guide, all EMS personnel will be referred to as EMS system responders. This group encompasses all emergency medical technicians (EMTs), paramedics, first responders, law enforcement officers, and public safety officers. Although most EMS issues are similar, there are some differences among EMS system responders. Every effort has been made to address those differences.

The major goal of this guide is to increase awareness, educate, and provide guidance to EMS system responders who are at risk for occupational exposure to blood, other potentially infectious materials, infectious diseases, and bioterrorism

This All Hazard Infectious Disease and Pandemic Response Guidelines for Pre-hospital Emergency Providers is intended to assist in keeping EMS system responders and the patients they care for safe and healthy while reducing their exposure risks.

Guidelines for EMS Operations

Communicable diseases are transmitted primarily by airborne or bodily fluid/ bloodborne and/or rarely both. The third method for this document will be “other” animals, food, water, insects, etc. This document is constructed to address the three primary modes of transmission; airborne, bodily fluids, and other. While each disease may have specific item of concern, this document will guide providers accordingly. Circumstances where specific disease management would indicate further guidelines will be addressed as such needs arise (See Section 3 of this document).

Background

International interest in the field of EMS infectious disease was accelerated by the U.S. Anthrax cases in October, 2001, concerns about Smallpox and bio-terrorism, and by the 2003 SARS outbreak in Toronto. Although there is increased awareness of bioterrorism incidents throughout the United States since September 11, 2001, no one can be truly prepared for all the hazards they could encounter during a bioterrorism event. This guide provides an overall view of the types of major biological weapons that might be encountered, types of PPE, and ways to protect one’s self and others.

We have resisted the temptation to specifically address the possibility of pandemic “disease” since this may limit the utility of these guidelines. Any pathogen may achieve pandemic proportions and impact, not just influenza.

During a pandemic, it may be necessary to make decisions regarding limited care in the face of increased demand and decreasing resources. These decisions will be difficult, but they must be made. As in triage at an MCI, the goal of our approach to a pandemic must be to maximize the use of available resources and provide reasonable help to the greatest number of people.

While compassion and caring are always appropriate, it is imperative that we do not allow these natural, human feelings to cloud our judgment in making treatment, transportation, or resource decisions. If resources are limited, the decisions we make in the field have implications beyond that of the individual patient. Emotional and/or psychological support may be needed for personnel after an infectious disease exposure and/or pandemic response this may be accomplished through Critical Incident Stress Management (CISM) or Employee Assistance Program (EAP). Subverting these guidelines could potentially threaten the entire medical system.

Notification

F.S-381.0031 requires licensed providers to immediately notify DOH, if suspect of Infectious Disease or through diagnosis, which impacts public health. Report to County Health Department.
If an infectious disease incident may have multi-agency or countywide impact the following notification process should be put in place.

- Agency Supervisor and Agency ICO
- Notify the Health Department of Broward County: 954-213-0694 or 954-734-3046 (Director)
- Notify the County Warning Point (Central Communication Center 954-476-4731) if unable to handle incident with local jurisdiction.

Engineering and Work Practice Controls and Personal Protective Equipment

Purpose

Engineering and work practice controls and PPE are key components to a comprehensive infection prevention program. They maximize protection against infectious diseases and sharps-related injuries for both EMS system responders and the public. The term engineering controls addresses redesign of equipment to ensure employee risk reduction, procedures that serve to reduce exposure such as cleaning equipment or areas that have been contaminated, and the use of barrier techniques to reduce direct contact with blood and other potentially infectious materials.

Infectious Diseases and Sharps Related Injuries Risk Assessment Basics

EMS system responders should use Standard Precautions for all patients. They should use additional PPE based on the risks they identify from the information they receive from dispatch or from their assessment when they arrive on the scene. Some agencies have the ability to identify patients with confirmed or suspected infectious diseases in dispatch information. However, given the mobile nature of society, agencies must be aware that the person at the address may not be the same as in agency records. EMS agencies must develop relationships with hospital IPs and local public health departments to develop a system for reporting and treating personnel with exposures. The ability to track infectious disease exposures and sharps-related injuries is essential for risk assessment.

Needlestick Safety and Prevention Act

In response to continued problems with accidental sharps injuries, Congress passed modifications to the OSHA Bloodborne Pathogens Standard which went into effect in 2001. EMS agencies can access an easy-to-use frequently asked question guide on this topic at: http://www.osha.gov/needlesticks/ needlefaq.html

A Needlestick-Prevention Device evaluation form can be found at: http://www.osha.gov/OshDoc/Directive_pdf/CPL_2-2_69_APPBForm2.pdf

Key Concepts

- Hand washing is the single most important means of preventing the spread of disease.
- Risk of exposure to infectious diseases and sharps-related injuries can be greatly reduced and eliminated by introducing and adhering to best practices and the Needlestick Safety and Prevention Act of 2000 for engineering and workplace controls.
- The word "personal" in PPE means EMS system responders are responsible to wear PPE for their own personal safety. Supervisors and ICOs are responsible to ensure their employees are adhering to policies.
- The use of Standard Precautions and utilizing PPE for all patient contact is recommended to minimize infectious disease transmission to EMS system responders.
- Any body fluid containing **visible blood** and other potentially infectious materials pose increased risk. Other potential infectious materials include the following:
    - Cerebrospinal fluid
    - Synovial fluid
    - Amniotic fluid
    - Pericardial fluid
    - Vaginal secretions
    - Semen
- Effective environmental cleaning, disinfection, and disposal of contaminated materials or equipment will reduce the risk of infectious disease transmission.

Standard Precautions

Standard Precautions are based on the principle that all blood, body fluid secretions, excretions (except sweat), nonintact skin, and mucous membranes may contain infectious organisms. Implementation of Standard Precautions is the primary strategy preventing healthcare-associated transmission of infectious agents among patients and healthcare personnel. Standard Precautions are intended to be applied to the care of all patients in all pre-hospital and healthcare settings. These practices include: hand hygiene, use of PPE (gloves, gown, mask, eye protection or face shield, depending on the anticipated exposure), and safe injection practices.

PPE can prevent blood and other body fluids from coming in contact with skin, eyes, and mouth.Equipment or items in the patient environment likely to have been contaminated with infectious body fluids must be handled in a way that prevents transmission of infectious agents (e.g., wear gloves for handling soiled equipment, properly clean and disinfect or sterilize reusable equipment before use on another patient, ensure the appropriate disposal of contaminated disposable items).

The application of Standard Precautions during patient care is determined by the nature of the emergency responder–patient interaction and the extent of anticipated blood, body fluid, or pathogen exposure. For some patient care, such as starting an IV, only gloves may be needed. When a patient is being intubated the use of gloves and face shield or mask and goggles are required.

Another mode of disease transmission is respiratory (e.g., cough, congestion, or droplets from the nose). Respiratory/cough etiquette recommendations are intended to decrease the spread of infectious particles that are expelled via respiratory droplets. There are four primary components: education, source control, hand hygiene, and spatial separation.

EMS system responders are advised to wear a mask, gloves, and eye protection when examining and caring for patients with signs and symptoms of a respiratory infection, fever, or flu-like symptoms (temperature range 100°F or greater, runny nose, cough, sneezing, and bodily aches). They must take precautions by covering the mouth and nose of a potentially infectious patient with a tissue when the patient is coughing, properly disposing of used tissues, using a surgical mask on the coughing patient when tolerated and appropriate, and washing their hands after contact with respiratory secretions or droplets. To minimize the risk of respiratory transmitted infection, it is advisable to keep a safe distance (if possible, at least 6 feet) from the patient. Minimize the number of crew members caring for the patient and within the breathing/coughing zone of the patient.

Defining Engineering and Work Practice Controls

Engineering controls are devices or changes in the physical environment that reduce the risk of exposure. These are important to isolate or remove the infectious disease hazards from the workplace. Examples of these are self-sheathing IV catheters, needleless systems, puncture-proof containers, decontamination areas, masks, respirators, and adequate ventilation systems. EMS agencies need to conduct periodic surveys to evaluate the use of engineering controls and identify current needs.

Work practice controls are behavior-based and are intended to reduce the risk of exposure by changing the way in which the tasks are performed. Examples of these are avoiding passing a syringe with an unsheathed needle and placing sharps directly into appropriate sharps containers located as closely to the point of care as possible.

Basic Engineering Control Components

The following engineering controls should be in use at each station or apparatus:

- Hand washing facilities
- Availability of alcohol-based hand cleansers or towelettes for on-scene use
- Disinfectant wipes for equipment
- Self-sheathing IV catheters and needleless systems
- Puncture-resistant, leak-proof, colorcoded, conveniently located sharps containers that are available on response apparatus
- Leak-proof, properly labeled, and conveniently located contaminated-waste receptacles
- Decontamination areas at stations (see page 34 for description)
- Single-use devices in place of reusable devices

Basic Work Practice Controls

- The following work practice controls must be used by all personnel:
- Wash hands or use antiseptic hand cleaner8 before and after patient care, before and as soon as gloves are removed, on returning to the station, after cleaning or decontaminating equipment, after using the restroom, and before preparing food.
- Flush eyes or mucous membranes with large amounts of water or saline if exposed to blood or body fluids.
- Dispose of sharps in puncture-resistant containers and keep in a secure position.
- Do not eat, drink, smoke, or handle contact lenses or apply lip balm in areas of possible contamination (in emergency vehicles, on scene, or while cleaning equipment).
- Use pocket masks or bag valve masks for ventilation.
- Do not keep food and drink in refrigerators designated biohazard with potentially infectious materials or medications.

- Place blood specimens in marked plastic bags for transport.
- Dispose of sharps containers when three quarters full or when at the full line.
- Appropriate identification and disposition of medical waste according to state regulations.

Personal Protective Equipment (PPE)

PPE is barrier protection and the last line of defense to prevent occupational exposure to blood or body fluids. PPE is necessary because all exposures cannot be minimized or eliminated by engineering or work practice controls. PPE reduces the risk but is only effective if used correctly. The use of PPE does not replace basic hygiene measures. Hand washing is still essential to prevent transmission of infection. Goggles or safety glasses for eye protection should be issued or available. These protect from splashes and respiratory diseases spread by droplets.

Standard on Protective Clothing for Emergency Medical Operations should utilize NFPA 1999 as a guideline for requirements for single-use and multiple-use emergency medical protective ensembles compromising the protective clothing items described for protection from airborne and liquid-borne pathogens.

When exposure to large amounts of blood or body fluid is anticipated, the use of a gown, sleeves, or booties over boots is also recommended. The employer is responsible for the supply, repair, replacement, and safe disposal of contaminated PPE. EMS system responders must report any issues with PPE verbally and in writing to their supervisor. Reusable PPE should be cleaned after every use or as needed. The following guidelines should be followed when using PPE:

- Discard all disposable contaminated PPE in appropriate containers as soon as feasible.
- Remove and appropriately dispose of gloves when they become soiled or torn. EMS system responders, including police and correctional officers, should carry an extra change of work clothing with them at all times in the event their work clothes are grossly contaminated in the course of their work.
- Disposable equipment is preferred but if multiuse equipment is used, follow the manufacturer's recommendations for cleaning and disinfection.

Law Enforcement and Correctional Facility Officers

Officers may face the risk of exposures to blood during the conduct of their duties. They may encounter blood-contaminated hypodermic needles or weapons or be called upon to assist with body removal. In order to reduce risk, the following guidelines should be followed:

- When blood is present and a suspect or inmate is combative or threatening to staff, gloves should be put on as soon as conditions permit.
- Protective masks or airways should be easily accessible in case mouth-to-mouth is needed.
- Due to the risk of puncture wounds or needlesticks during suspect searches, an officer should use extreme caution in searching the clothing of suspects. Wear protective gloves, especially for body searches.
- Always use a flashlight to search such areas as under the seat of a car or purse to avoid being stuck.
- To avoid tearing gloves, use evidence tape instead of staples to seal evidence.
- Use puncture-proof containers to store sharp instruments.
- Use thick gloves to search suspects.
- Avoid handling personal items while wearing contaminated gloves.
- Prisoners may spit at officers and throw feces; sometimes these substances have been purposefully contaminated with blood. These materials should be removed after donning gloves then decontaminate with an appropriate germicide and dispose of gloves properly.

Disinfection Procedures

Upon the completion of all responses, contaminated equipment should be removed and replaced with clean equipment. Supplies of PPE on response vehicles should also be restocked. Contaminated equipment should be placed in a leak-proof bag and segregated from clean equipment. Cleaning and decontamination should be done as soon as practical. Gloves should be worn when cleaning equipment and when using disinfectants to protect the skin from damage and contamination.

Wash hands and change clothes, if necessary, after decontamination of equipment and clothing. Before disinfection, equipment must be thoroughly cleaned with soap and water and scrubbed to remove organic matter (blood and tissue) and other residue. Ensure cleaned items are properly stored to prevent reinfection or contamination during storage.

Disinfection Solutions

Select U.S. Environmental Protection Agency (EPA) registered disinfectants or detergent/disinfectants that meet the department's routine cleaning and disinfection guidelines. Follow manufacturer's guidelines for appropriate selection and use of disinfecting solutions, and pay special attention to the prescribed contact time.

SECTION 2

Recommended Guidelines, Prevention and Immunization Practices

Purpose Each employer shall identify "at risk" workers based on job descriptions. (OSHA CFR 1910.1030)

Risk Levels:
At Risk Workers. Emergency medical and public safety workers are at risk for exposure to blood, body fluids, feces and/or respiratory secretions.

Low Risk Workers. These workers are identified through job descriptions as having job tasks that are low or no "At-risk" to exposure to blood, body fluids, feces and/or respiratory secretions. For these workers timely postexposure prophylaxis rather than preexposure vaccination may be considered.

Special Risk Workers. Periodic evaluation of job description may be done as indicated to evaluate certain tasks that may be considered at a higher level.

History of Immunity. Workers who are "at risk" for exposure to and possible transmission of vaccine preventable diseases should have on record of employment all immunizations currently recommended by the US Public Health Service. A medical evaluation that includes childhood immunity or immunization history for Measles, Mumps, Rubella, Tetanus, Diphtheria, Polio, Pertussis (Whooping cough) and Varicella zoster (chicken pox) should be obtained and recorded for these workers. This program should be completed at the time of hire or as part of a catch-up program. (CDC MMWR November 25, 2011/60(RR07);1-45). (NFPA 1581;2010ed.,4.5.2.1).

INFECTION CONTROL PROGRAMS
Infection Control Officer. Employers shall identify a Designated Infection Control Officer (ICO).

Education. Workers shall have Bloodborne/Airborne Pathogen Training.

Immunization Programs. Employers with vaccination programs shall offer vaccine product information and declination statements as determined by CDC and OSHA regulation. Employers shall make vaccines available to workers who initially decline and later decides to accept the vaccines within 10 days.

Medical Records and Test Maintenance. All workers' medical records, immunization records and baseline testing shall be maintained according to applicable laws governing medical confidentiality. (29 CFR 1910.1030(h)).

Needle-Stick Prevention Programs. Employers shall provide needleless systems (where applicable). Needleless systems means a device that does not use needles for: (1) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) The administration of medication or fluids; or (3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps. (OSHA 29 CFR 1910.1030(e)(2)).

Hepatitis Vaccination Programs. All "At-Risk" workers shall have made available to them at employment (within 10 days) of initial assignment the Hepatitis vaccine and education, unless the worker has documentation of the following: completed vaccination series, record of immunity (positive

titer), or medical contraindications. (29 CFR 1910.1030(f) (2)). Hepatitis A vaccination is strongly recommended and may be offered if specific local conditions dictate. (NFPA 1581;2010ed.,4.5.2.1).

Influenza Vaccination Programs. "At Risk" Workers are considered to be at significant risk for acquiring or transmitting influenza (the common Flu). Influenza vaccine should be made available to workers from October through February annually. (CDC MMWR November 25, 2011/60(RR07);1-45) (NFPA 1581).

Tdap Vaccination Programs. "At Risk" Workers are considered to be at significant risk for acquiring or transmitting tetanus toxoid, diphtheria toxoid and acellular pertussis. Tdap vaccines should be made available to workers. (CDC MMWR November 25, 2011/60(RR07);1-45).

Periodic Titer Screening for Immunizations. Routine periodic post vaccination screening is not recommended after initial titer level has been determined. Booster doses are not currently recommended. If the U.S. Public Health Service recommends a routine booster dose(s) at a future date, such booster dose(s) shall be made available. (29 CFR 1910.1030(f) (1) (ii).

BASELINE AND ANNUAL SCREENING

Baseline Screening. Baseline screening for TB, Hepatitis A, B and C is indicated for presumptive laws requirements. Meningitis is also covered in the presumptive law but does not require a baseline screening. (FS 112.181 6(a) (b)). (Florida Pension Statue for police and firefighters only)

TB Screening. A tuberculin skin test (PPD) or Quantiferon-TB (CPT 84480) Test shall be performed for all "at-risk" annually or per agency policy.. Workers who have previously tested negative and now test positive shall have a baseline chest x-ray and one follow-up a year later. All new positive TB test results shall have prophylactic treatment offered. (CDC MMWR 1994:43(RR13) or for Quantiferon MMWR 2003: January 31 (RR02;15-18).

POSTEXPOSURE MANAGEMENT

- **Provide personal first aid.**
- **Remove contaminated clothing**
- **Secure area to prevent further contamination.**
- **Wash the area well with soap and water or personal protective solution.**
- **Notify Supervisor**
- **Assess the level of exposure (significant or non-significant)**

Notification and Relief of Duty. The worker's supervisor should be notified if a worker experiences an occupational exposure involving potentially infectious material. The supervisor should determine if the worker needs to be relieved of duty.

Assess the Level of Exposure. An Occupational exposure is the "exposure to another person's body fluids or airborne fluids. There are two types of occupational exposures, non significant and significant.

Non-Significant Exposure. Non-Significant exposures are occupational exposures that have little to no risk of transmission of diseases known at this time. All Non-Significant exposures need to be documented on the "Infectious Disease Exposure Report Form", so at a later date should said occupation exposure be reported by the CDC as having an increased risk, the exposure was documented.

Significant Exposure. Significant Exposures have increased risk of transmission and acquiring of disease(s). All Significant exposures need documentation and medical follow-up.

Assessing Exposures to Blood or Body Fluids. A significant bloodborne or body fluid exposure

Body Fluids:

- Blood, Serum, and all fluids visibly contaminated with blood
- Pleural, amniotic, peritoneal, synovial, and cerebrospinal fluids
- Uterine/vaginal secretions, semen, feces and urine
- Saliva

Action or Injury:

- Percutaneous (through the skin injuries such as, needlestick, laceration, abrasion, bites, etc.)
- Mucous membranes (e.g. eyes, nose, mouth)
- Nonintact Skin (e.g. cut, chapped or abraded skin). Consider the larger the area and/or the longer the material is in contact, the more difficult it is to verify that all relevant skin area is intact. Also, an increased risk if within 2 hours of shaving skin and scabs <24 hours, if skin is still open.

Assess the Exposure to Droplets or Airborne Exposure. A significant airborne exposure is considered a combination of a source exhibiting signs/symptoms of suspected airborne illness and an incident that would place the worker at risk of droplet or airborne exposure.
Source: Any aerosolized exhalations containing droplets, sputum, lung secretions or saliva either by the source coughing, spitting, breathing or by any airway management action by the worker such as suctioning or intubating AND the worker was not wearing appropriate respiratory protection (HEPA mask, eye protection).
Actions by worker that have increased risk of airborne disease spread include; unprotected mouth-to-mouth CPR, and airway management.

REPORTING, MEDICAL ATTENTION, CONSENT AND TESTING

Report the Exposure. The worker or supervisor should begin filling out an Infectious Disease Exposure Form" and submit it to the Designated Infection Control Officer.

Transport. A Significantly exposed worker should be transported to a designated facility within 2 hours for evaluation, testing and treatment options (preferably a facility that offers rapid HIV testing if the material was blood or body fluids). The worker and the source patient should be transported to the same medical facility.

Triage. The worker should be rapidly triaged as possible. The worker should present to the medical facility an Infectious Disease Exposure reporting Form and an Employer Information Sheet that contains specific information about the employer, the employees Designated Infection Control Officer, the employers worker compensation policy, and employers medical providers information for follow-up care.

Consent and Counseling. Counseling shall be provided to and consent obtained from both source of the exposure and the exposed worker (29 CFR 1910.1030(f) (3)). The Worker's Compensation carrier will incur cost of testing for source and worker.

Informed Consent. Source and exposed worker consent to physician authorizing testing. The source will not incur any cost of said testing.

No Consent. (e.g. source is unconscious or denies consent) If consent cannot be obtained from the source of the exposure and blood sample is available, the facility can conduct testing without consent and the attending physician documents the need in the medical record of the worker.
Note: Florida's Omnibus AIDS Act provides for a court order for the source to comply and have testing completed. In this case, prophylaxis treatment may not be completed in a timely manner, medical protocol provides for an "unknown source" category.

Postexposure Testing for Blood and Body Fluids. The facility should perform an Acute Hepatitis Panel (CPT 80074), Rapid HIV and RPR (Syphilis) tests. Testing maybe added as per attending physician request.

Postexposure Testing for Droplets or Airborne Exposure. Focus on airborne droplet exposure is focused on alerting the medical facility that a significant exposure has occurred. Testing is administered by the facility targeting a myriad of airborne diseases. If TB exposure is suspected a tuberculin skin test (PPD) or Quantiferon (CPT 84480) following the exposure should be performed on source and exposed worker. Do not perform tuberculin skin test (PPD) on exposed worker has been tested within the previous 12 weeks, or has a history of positive skin test reaction.

Hospital Notification. If no exposure was reported to the medical facility, and the medical facility determined through testing that and increased risk of disease transmission may have occurred, shall notify the agency of such event within 48 hours after determination. (F.S. Ryan White Act)

Discharge. The Infectious Disease Exposure Reporting form should be complete with a discharge summery that includes a description of all diagnostic tests performed on the worker. A copy of the form is routed to the Designated Infection Control Officer and a copy is provided to the worker.

Postexposure Medical Follow-Up. The employer is responsible to provide or make available postexposure monitoring as directed by the medical provider. Follow-up testing from blood and body fluid exposures will be performed after the initial, at week six, week twelve and week twenty-six after the exposure. Testing after one year may be indicated for high-risk significant exposures.

SECTION 3

Guidelines for Communications/Communication Center Operations

History: Communications serve an important function in every phase of EMS incident management, including those involving infectious disease pathogens.

Communication Center centers provide a critical "link" in identifying the presence of an "infectious environment", determining resources required, initiating responses, advising responding units of prevailing conditions, and providing pre-arrival instructions to members of the public. In addition, they may identify specific clusters of illness based on symptoms and geographic locations, which will serve as an important "Epidemiology-link" to Public Health and responder agencies.

Information: Communications personnel may transfer callers requesting information or reporting infectious disease signs and symptoms to alternate sources, **where no medical need is required**. These may include recorded scripts or recorded information lines established by public health, 211 or 311 lines, or other information resources set up during a pandemic. This information may include reporting a dead body or caring for a dead body until retrieval can be arranged. **The required call-processing time limits will be waived, along with response time requirement, ambulance staffing, and ambulance response times.**

Operations: In managing calls for EMS service, Call Receivers must be alert for signs and symptoms, which indicate the presence of an infectious disease or a potentially infectious condition. In addition to the usual EMS questions, when an infectious disease is reported or suspected, callers should be asked specifically. Communications personnel are trained to seek information from callers and transmit that information to responders, which indicates the presence of an infectious disease or a potentially infectious condition. In addition to the usual EMS questions, during a pandemic, callers should be asked:

Are signs or symptoms of infectious disease present? Does the patient have?

- Fever
- Cough
- Shortness of breath
- Respiratory distress
- Unusual skin rash
- Gastro-intestinal symptoms (nausea, vomiting, diarrhea)
- Recent exposure to any ill persons
- Recent travel to regions known to be affected with disease outbreaks

Call-Receivers must be alert for information indicating that there are multiple patients with the same symptoms or complaints. Communications center personnel may identify "clusters" of patients, either geographically or within a period of time. This information may warrant the initiation of a Haz-Mat or MCI response and may indicate the need for law enforcement to provide scene security.

Short reports to responding units must include the information on signs and symptoms of infectious disease as outlined above, along with the term "EIDS (Emerging Infectious Disease Surveillance) Tool used or PPE advised."

This information should prompt responders to don Personal Protection Equipment (PPE) before making patient contact.

Pre-arrival instructions to callers must include directions to provide scene security, limit number of individuals exposed, and reduce the infection risk:

- Caller to remain on location
- Avoid contact/exposure to other people
- Move outside, if possible
- Increase ventilation: open doors and windows

Reduction of Service: During Pandemic operations, communications centers may be directed by the Medical Director to reduce or restrict EMS responses. This will be implemented by a "Reduction of Service Policy" to specific EMS alarm types or Incident Communication Center Codes. The "Reduction of Service Policy" will be terminated upon directions from the Medical Director.

In addition, the communication centers must: Monitor the daily hospital status in the region, including hospitals on listed as on advisory status or closed and the designation of any infectious disease receiving facilities, including established alternate care sites. See **Pandemic Flu and Infectious Disease Exposure - Protocol 36,** Dispatch card layout and routine questions can be found on Appendix 2.

Guidelines for EMS Operation - Airborne Transmission

During the response, EMS providers must pay close attention to the Communication Center information provided, either verbally or via CAD and pager, for details indicating a possible infectious condition and the warning **"EIDS (Emerging Infectious Disease Surveillance) Tool used or PPE advised."** This may include "History" or other knowledge of known infectious patients or locations where these patients have been identified. Remember that the patient(s) may have been advised by Communication Center to move outside.

Air medical transport units should not be utilized unless absolutely necessary.

Don Personal Protective Equipment (PPE). All-hazards respiratory Infectious Disease PPE may include:

- Splash-protective eyewear – goggles, glasses, face shield
- Fit-tested HEPA respirator
- Fit tested N95 or N100 respirator (If needed follow: donning/doffing procedures)
- For possible H1N1 best choice is N95 mask, surgical masks are acceptable (If needed follow: donning/doffing procedures)
- Splash-resistant gown or suit
- PAPRs / SCBA (as needed)
- Gloves
- Boot covers

Limit the number of individuals exposed, including responders and public. The Incident Commander, if on scene, will ensure scene security, denying exit to those exposed and entry to unnecessary personnel and anyone not wearing approved PPE, including law enforcement and other responders.

Increase ventilation: open doors and windows. Move patient outside, if possible. Do not place a possibly infectious patient in an EMS response vehicle until circumstances are more clearly understood.

Determine or confirm the presence of possible infectious disease based on:

- patient complaint
- symptoms
- signs
- history - including travel and possible exposure.

Place mask (surgical/procedure masks) on patient, as tolerated.

Contact Precautions: EMS personnel should wear gloves. Gloves should be removed following direct contact with the suspect ILI patient and hand hygiene should be performed.

Droplet Precautions/Respiratory Protection (Surgical Mask/N95 Respirator; and eye or face protection): EMS personnel should use droplet precautions/respiratory protection when within 6 feet of a suspected ILI patient. In many situations, the only option available is to use an surgical mask for respiratory illness; however, if there is a choice to be made, the choice between droplet precautions (surgical mask) and respiratory protection (N95 respirator), the N95 should be utilized.

An N95 Respirator Must be Worn: Where conducting an aerosol-generating medical procedure (AGMP) on a suspect ILI patient, all EMS personnel in the area should wear an N95 respirator. An

AGMP includes any procedure carried out on a patient that can induce the production of aerosols of various sizes, including droplet nuclei. Examples include: non-invasive positive pressure ventilation (BIPAP, CPAP), intubation and manual ventilations.

BLS Therapy Guidelines:

- Apply surgical or procedure mask to I.D. symptomatic patients over oxygen appliances.
- HEPA filters will be used, when available, on:
  - Bag-valve mask (BVM) ventilators
  - Nebulizers
  - Non-rebreather oxygen masks
  - Suction units
- Patients must be able to maintain their own airway:
  - Oropharyngeal (OPA) and nasopharyngeal airways (NPA) will not be placed.
  - Mechanical ventilations will not be attempted.
- Decisions regarding palliative care may be required at the BLS level in consultation with medical control when medical resources and medical destinations are unavailable.

ALS Therapy Guidelines:

- **Cough-producing treatment procedures will increase the spread of respiratory droplet pathogens**. Consider limiting these procedures as outlined by local medical guidelines and standing orders. For example, consider placing a surgical/procedure mask over nasal cannulas supplying oxygen to patients. **Nebulizer and Metered-Dose inhaler treatments may be contraindicated in patients with respiratory infections.**
- Support and continue BLS palliative care efforts as outlined above. Additional "care & comfort" measures may include: sedative and pain medications and IV hydration.
- Advanced airway maneuvers may not be helpful, including ventilation, intubation and surgical airways.

Patient Disposition & Transport:

Individual patient transport destinations will be determined based on:

- The patient's medical needs
- Infectious disease status, suspected or known
- Regional hospital status (bed availability)
- Pre-designated hospital(s), if any, for known or suspected infectious disease patients
- Availability of transport vehicles
- Alternate Care Sites (ACS) facilities

Communications with the receiving hospital will include the known or suspected infectious disease status of the patient and plans for transferring the patient at the receiving facility.

During transport, ventilation within the patient compartment will be increased by opening windows and turning on mechanical ventilation. A positive-pressure environment in the driver's cab will be achieved by turning on mechanical ventilation and leaving windows closed. If possible, any entry or opening between the patient compartment and cab will be closed and sealed.

On arrival at the hospital, PPE will be worn until patient transfer has occurred and the EMS equipment and vehicle have been decontaminated.

Guidelines for Decontaminating EMS Transport Vehicles with Suspected Airborne Transmission:

The following interim general guidelines have been published by the CDC for decontaminating EMS transport vehicles used to transport suspected influenza patients.

Influenza viruses can persist on nonporous surfaced for 24 hours and more, but quantities of the virus sufficient for human infection are likely to persist for shorter periods. Although the relative importance of virus transfer from inanimate objects to humans in spreading influenza is not known, hand transfer of the virus to the mucous membranes of the eyes, nose, and mouth resulting in infection is likely to occur. Hand hygiene, cough etiquette and respiratory hygiene are the principle means of interrupting this type of transmission. Routine cleaning and disinfection practices may play a role in minimizing the spread of influenza.

Routine cleaning with soap or detergent and water to remove soil and organic matter, followed by the proper use of disinfectants, are the basic components of effective environmental management of influenza. Reducing the number of influenza virus particles on a surface through these steps can reduce the chances of hand transfer of virus. Influenza viruses are susceptible to inactivation by a number of chemical disinfectants readily available from consumer and commercial sources.

Routine cleaning methods should be employed throughout the vehicle with special attention in certain areas as specified below:

1. Clean and disinfect non-patient-care areas of the vehicle according to the vehicle manufacturer's recommendations.

2. Non-patient-care areas of the vehicle, such as the driver's compartment, may become indirectly contaminated, such as by touching the steering wheel with a contaminated glove. Personnel should be particularly vigilant to avoid contaminating environmental surfaces that are not directly related to patient care (e.g. steering wheels, light switches). If the surfaces in the driver's compartment become contaminated, they should be cleaned and disinfected according to the recommendations in item 4 below.

3. Wear non-sterile, disposable gloves that are recommended by the manufacturer of the detergent/disinfectant while cleaning the patient-care compartment and when handling cleaning and disinfecting solutions. Dispose of gloves if they become damaged or soiled or when cleaning is completed, in a sturdy leak-proof (e.g. plastic) bag that is tied shut and not re-opened. State and local governments should be consulted for appropriate disposal decisions. Barring specific state solid or medical waste regulations to the contrary, these wastes are considered routine solid wastes that can be sent to municipal solid waste landfills without treatment. Never wash or reuse disposable gloves. Avoid activities that may generate infectious aerosols. Eye protection, such as a face-shield or goggles, may be required if splashing is expected. Cleaning activities should be supervised and inspected periodically to ensure correct procedures are followed.

4. Frequently touched surfaces in patient-care compartments (including stretchers, railings, medical equipment control panels, adjacent floorings, ceilings and work surfaces, door handles, radios, keyboards and cell phones) that become directly contaminated with respiratory secretions and other bodily fluids during patient care, or indirectly by touching the surfaces with gloved hands, should be cleaned first with detergent and water and then disinfected using an EPA-registered hospital

disinfectant in accordance with the manufacturer's instructions. Ensure that the surface is kept wet with the disinfectant for the full contact time specified by the manufacturer. Adhere to any safety precautions or other recommendations as directed (e.g. allowing adequate ventilation in confined areas, and proper disposal of unused product or used containers).

5. Non-porous surfaces in patient-care compartments that are not frequently touched can be cleaned with detergent and water. Avoid large-surface cleaning methods that produce mists or aerosols or disperse dust in patient-care areas (e.g. use wet dusting techniques, wipe application of cleaning and/or disinfectant solutions).

6. Immediately clean hands with soap and water or an alcohol-based hand gel. Avoid touching the face with gloved or unwashed hands.

Decontamination of vehicle, equipment and all potentially contaminated surfaces will take place following each agency's directions and using solutions, wipes and other materials provided for this purpose.

Remember: for waterless hand cleaning the CDC recommends using solutions, which contain > 70% alcohol.

Removal and disposal of contaminated PPE will take place in accordance with each agency's policies. Contaminated PPE must be disposed of as any other contaminated, bio-medical waste.

Removal of PPE will be followed by hand-washing with soap and warm water, if available, otherwise with waterless, alcohol-based hand sanitizer.

PPE items will be replenished and readied before returning to in-service status.

Depending on type of exposure, EMS personnel should not enter the living quarters of their stations, or return home, without ensuring that every opportunity has been taken to wash, change clothing and otherwise provide personal hygiene and decontamination.

Each EMS agency is responsible for its own exposure documentation, employee tracking and follow-up. Each agency is responsible for monitoring its employees and their families and for setting prudent "Return-to-Work" guidelines.

CDC website will offer guidance on return to work and sick time. This guidance will continue to be updated as more information becomes available.

CDC recommends that healthcare workers (First Responders) with influenza-like illness remain at home for at least twenty-four (24) hours after they are free of fever (>100° F [37.8°C]), or signs of a fever without the use of fever-reducing medications; or the most current CDC recommendations.

For the most current information about pandemic influenza, including up-to-date guidance documents and related materials, visit www.pandemicflu.gov.

Guidelines for EMS Operation- Bodily Fluid/ Bloodborne Transmission

During the response, EMS providers must pay close attention to the Communication Center information provided, either verbally or via CAD and pager, for details indicating a possible infectious condition and the warning **"EIDS (Emerging Infectious Disease Surveillance) Tool used or PPE advised."** This may include "History" or other knowledge of known infectious patients or locations where these patients have been identified.

Air medical transport units should not be utilized unless absolutely necessary.

Remember that the patient(s) may have been advised by Communication Center to move outside.

Don Personal Protective Equipment (PPE). All-hazards respiratory infectious disease PPE may include:

- Splash-protective eyewear – goggles, glasses, face shield
- Fit-tested HEPA respirator
- Fit tested N95 or N100 respirator (If needed follow: donning/doffing procedures)
- Splash-resistant gown or suit
- PAPRs / SCBA (as needed)
- Gloves
- Boot covers

Limit the number of individuals exposed, including responders and public. The Incident Commander, if on scene, will ensure scene security, denying exit to those exposed and entry to unnecessary personnel and anyone not wearing approved PPE, including law enforcement and other responders.

Increase ventilation: open doors and windows. Move patient outside, if possible. Do not place a possibly infectious patient in an EMS response vehicle until circumstances are more clearly understood.

Determine or confirm the presence of possible infectious disease based on:

- patient complaint
- symptoms
- signs
- history - including travel and possible exposure.

Place mask (surgical/procedure masks) on patient, as tolerated.

Contact Precautions: EMS personnel should wear gloves. Gloves should be removed following direct contact with the suspect ILI patient and hand hygiene should be performed.

Droplet Precautions/Respiratory Protection (Surgical Mask/N95 Respirator; and eye or face protection): EMS personnel should use droplet precautions/respiratory protection when within 6 feet of a suspected ILI patient. In many situations, the only option available is to use an surgical mask for respiratory illness; however, if there is a choice to be made, the choice between droplet precautions (surgical mask) and respiratory protection (N95 respirator), the N95 should be utilized.

An N95 respirator Must be Worn: Where conducting an aerosol-generating medical procedure (AGMP) on a suspect ILI patient, all EMS personnel in the area should wear an N95 respirator. An AGMP includes any procedure carried out on a patient that can induce the production of aerosols of various sizes, including

droplet nuclei. Examples include: non-invasive positive pressure ventilation (BIPAP, CPAP), intubation and manual ventilations.

BLS Therapy Guidelines:

- Apply surgical or procedure mask to infectious disease symptomatic patients over oxygen appliances.
- HEPA filters will be used, when available, on:
  - Bag-valve mask (BVM) ventilators
  - Nebulizers
  - Non-rebreather oxygen masks
  - Suction units
- Patients must be able to maintain their own airway:
  - Oropharyngeal (OPA) and nasopharyngeal (NPA) airways will not be placed.
  - Mechanical ventilations will not be attempted.
- Decisions regarding palliative care may be required at the BLS level in consultation with medical control when medical resources and medical destinations are unavailable.

ALS Therapy Guidelines:

- **If cough-producing treatment procedures will increase the spread of respiratory droplet pathogens**. Consider limiting these procedures as outlined by local medical guidelines and standing orders. For example, consider placing a surgical/procedure mask over nasal cannulas supplying oxygen to patients. **Nebulizer and Metered-Dose inhaler treatments may be contraindicated in patients with respiratory infections.**
- Support and continue BLS palliative care efforts as outlined above. Additional "care & comfort" measures may include: sedative and pain medications and IV hydration.
- Advanced airway maneuvers may not be helpful, including ventilation, intubation and surgical airways.

Patient Disposition & Transport:

Individual patient transport destinations will be determined based on:

- The patient's medical needs
- Infectious disease status, suspected or known
- Regional hospital status (bed availability)
- Pre-designated hospital(s), if any, for known or suspected infectious disease patients
- Availability of transport vehicles
- Alternate Care Sites (ACS)

Communications with the receiving hospital will include the known or suspected infectious disease status of the patient and plans for transferring the patient at the receiving facility.

On arrival at the hospital, PPE will be worn until patient transfer has occurred and the EMS equipment and vehicle have been decontaminated.

Guidelines for Decontaminating EMS Transport Vehicles with Suspected Bodily Fluid/ Bloodborne Transmission:

The following interim general guidelines have been published by the CDC for decontaminating EMS transport vehicles used to transport suspected influenza patients.

Influenza viruses can persist on nonporous surfaced for 24 hours and more, but quantities of the virus sufficient for human infection are likely to persist for shorter periods. Although the relative importance of virus transfer from inanimate objects to humans in spreading influenza is not known, hand transfer of the virus to the mucous membranes of the eyes, nose, and mouth resulting in infection is likely to occur. Hand hygiene, cough etiquette and respiratory hygiene are the principle means of interrupting this type of transmission. Routine cleaning and disinfection practices may play a role in minimizing the spread of influenza.

Routine cleaning with soap or detergent and water to remove soil and organic matter, followed by the proper use of disinfectants, are the basic components of effective environmental management of influenza. Reducing the number of influenza virus particles on a surface through these steps can reduce the chances of hand transfer of virus. Influenza viruses are susceptible to inactivation by a number of chemical disinfectants readily available from consumer and commercial sources.

Routine cleaning methods should be employed throughout the vehicle with special attention in certain areas as specified below:

1. Clean and disinfect non-patient-care areas of the vehicle according to the vehicle manufacturer's recommendations.

2. Non-patient-care areas of the vehicle, such as the driver's compartment, may become indirectly contaminated, such as by touching the steering wheel with a contaminated glove. Personnel should be particularly vigilant to avoid contaminating environmental surfaces that are not directly related to patient care (e.g. steering wheels, light switches). If the surfaces in the driver's compartment become contaminated, they should be cleaned and disinfected according to the recommendations in item 4 below.

3. Wear non-sterile, disposable gloves that are recommended by the manufacturer of the detergent/disinfectant while cleaning the patient-care compartment and when handling cleaning and disinfecting solutions. Dispose of gloves if they become damaged or soiled or when cleaning is completed, in a sturdy leak-proof (e.g. plastic) bag that is tied shut and not re-opened. State and local governments should be consulted for appropriate disposal decisions. Barring specific state solid or medical waste regulations to the contrary, these wastes are considered routine solid wastes that can be sent to municipal solid waste landfills without treatment. Never wash or reuse disposable gloves. Avoid activities that may generate infectious aerosols. Eye protection, such as a face-shield or goggles, may be required if splashing is expected. Cleaning activities should be supervised and inspected periodically to ensure correct procedures are followed.

4. Frequently touched surfaces in patient-care compartments (including stretchers, railings, medical equipment control panels, adjacent floorings, ceilings and work surfaces, door handles, radios, keyboards and cell phones) that become directly contaminated with respiratory secretions and other bodily fluids during patient care, or indirectly by touching the surfaces with gloved hands, should

be cleaned first with detergent and water and then disinfected using an EPA-registered hospital disinfectant in accordance with the manufacturer's instructions. Ensure that the surface is kept wet with the disinfectant for the full contact time specified by the manufacturer. Adhere to any safety precautions or other recommendations as directed (e.g. allowing adequate ventilation in confined areas, and proper disposal of unused product or used containers).

5. Non-porous surfaces in patient-care compartments that are not frequently touched can be cleaned with detergent and water. Avoid large-surface cleaning methods that produce mists or aerosols or disperse dust in patient-care areas (e.g. use wet dusting techniques, wipe application of cleaning and/or disinfectant solutions).

6. Immediately clean hands with soap and water or an alcohol-based hand gel. Avoid touching the face with gloved or unwashed hands.

Decontamination of vehicle, equipment and all potentially contaminated surfaces will take place following each agency's directions and using solutions, wipes and other materials provided for this purpose.

Remember: for waterless hand cleaning the CDC recommends using solutions, which contain > 70% alcohol.

Removal and disposal of contaminated PPE will take place in accordance with each agency's policies. Contaminated PPE must be disposed of as any other contaminated, bio-medical waste.

Removal of PPE will be followed by hand-washing with soap and warm water, if available, otherwise with waterless, alcohol-based hand sanitizer.

PPE items will be replenished and readied before returning to in-service status.

Depending on the type of exposure, EMS personnel should not enter the living quarters of their stations, or return home, without ensuring that every opportunity has been taken to wash, change clothing and otherwise provide personal hygiene and decontamination.

Each EMS agency is responsible for its own exposure documentation, employee tracking and follow-up. Each agency is responsible for monitoring its employees and their families and for setting prudent "Return-to-Work" guidelines.

CDC website will offer guidance on return to work and sick time. This guidance will continue to be updated as more information becomes available.

CDC recommends that healthcare workers (first responders) with influenza-like illness remain at home for at least twenty-four (24) hours after they are free of fever (>100° F [37.8°C]), or signs of a fever without the use of fever-reducing medications; or the most current CDC recommendations.

SECTION 4

Infectious Disease Emergency and Bioterrorism Preparedness

Pandemics

A pandemic is a large-scale outbreak that affects at least two continents. Unlike a bioterrorism attack or outbreak of an emerging infection, a pandemic is usually not an event that occurs suddenly, although a pandemic can strike without warning, as evidenced by the 2009 H1N1 pandemic. The World Health Organization (WHO) describes six phases of a pandemic, starting with the period in which there are few to no human cases from the organism/disease to the period in which there is efficient and sustained disease spread from person to person. Pandemics are expected to hit communities in multiple waves, each lasting approximately 6 to 8 weeks, making response a more prolonged event than with other types of disasters. Each pandemic wave will cause significant patient surge, including an increased need for emergency medical services. During an influenza pandemic, attack rates will likely be between 15 and 35 percent across all populations; young children and the elderly are expected to be disproportionately affected and have attack rates close to 40 percent.

There are a number of agents that could cause a pandemic, including Ebola, SARS and plague. Historically, influenza has caused the most pandemics and is expected to cause others in the future.

Pandemic World Health Organization (WHO) Phases:

Interpandemic phase: This is the period between influenza pandemics.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur.

Phases 1–4 correlate with preparedness, including capacity development and response planning activities, while Phases 5 – 6 clearly signal the need for response and mitigation efforts.

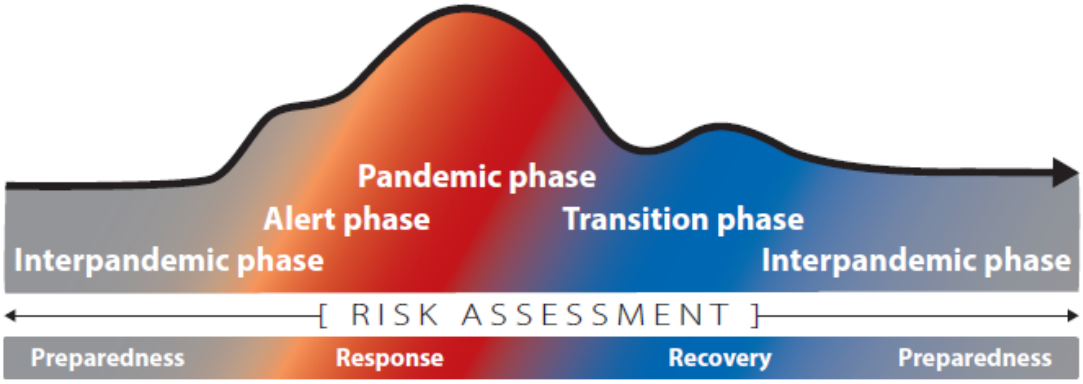
- **WHO – 1:** No viruses circulating among animals have been reported to cause infections in humans.
- **WHO – 2:** An animal influenza virus circulating among domesticated or wild animals is known to have caused infection in humans, and is therefore considered a potential pandemic threat.
- **WHO - 3**: No or very limited human to human transmission.
- **WHO - 4**: Evidence of increased human to human transmission

Pandemic phase: This is the period of global spread of human influenza caused by a new subtype. Movement between the interpandemic, alert and pandemic phases may occur quickly or gradually as indicated by the global risk assessment, principally based on virological, epidemiological and clinical data.

- **WHO - 5**: Evidence of significant human to human transmission.
- **WHO - 6**: Efficient and sustained human to human transmission

Transition phase: As the assessed global risk reduces, de-escalation of global actions may occur, and reduction in response activities or movement towards recovery actions by countries may be appropriate, according to their own risk assessments.

Figure 1. The continuum of pandemic phases[a]



[a] This continuum is according to a "global average" of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.

Adapted from World Health Organization. WHO phase of pandemic alert http://www.doi.gov/emergency/pandemicflu/appendix-d.cfm

Bioterrorism

Bioterrorism refers to the use of biological agents on civilian or military populations, animals, or crops. A combination of factors have raised concerns about the actual use of bioterrorism agents, including the breakup of the former Soviet Union and the concomitant dispersal of scientists and agents involved in bioterrorism research, the rise of radical groups focused on destroying what they believe to be evil forces, and the discovery of Iraq's stockpiled anthrax, botulinum toxin, and other biological warfare agents. There are a broad range of potential bioterrorism agents, including bacteria, viruses, and other toxins of microbial, plant, or animal origin.

Nature of the Bioterrorism Threat

The most likely route of dissemination is an aerosolized release of particles. Other methods of dissemination include oral (intentional contamination of food/water supply), percutaneous, infected animal vector (e.g., release of infected fleas), and human-to-human spread (individual infected with communicable disease walking among a crowd of healthy people). Other possible distribution methods, such as mailing a letter or package containing infectious particles may also be feasible.

Infection Prevention Procedures

The amount of ICO involvement in disaster response depends on the agent involved. In an infectious disease disaster, involvement will be critical, especially if the agent is communicable. Many agents of bioterrorism are not transmitted from person to person, but some are. Most emerging infectious diseases are communicable, but a few are not. Bioterrorism agents and emerging infectious diseases that are communicable pose the greatest risk to society. Examples of potential infectious disease disasters that involve communicable diseases include pneumonic plague, Ebola, smallpox, viral hemorrhagic fever viruses, SARS, and pandemic influenza. In these instances, infection prevention will be essential to control the outbreak, prevent future cases, and decrease morbidity and mortality associated with the event.

Isolation, Personal Protective Equipment, and Hand Hygiene

In addition to pharmacological interventions, nonpharmacological interventions should be implemented to prevent and control disease spread during an infectious disease disaster. The primary nonpharmacological interventions involve isolation, PPE, and hand hygiene. In regard to bioterrorism, the exact necessary infection prevention procedures cannot be estimated before an attack occurs. It depends on many factors, including how soon the release is detected (i.e., whether decontamination and prophylaxis are necessary), how soon the diagnosis is made, how soon appropriate isolation was initiated (i.e., the number of affected individuals), and what agent was used (i.e., whether the agent is contagious). Hand hygiene will be essential during any infectious disease disaster, and will aid in disease spread as well as protecting EMS personnel from exposure and illness.

Any time a bioterrorism-related or emerging infectious disease is suspected, infection prevention guidelines for that specific agent/disease should be followed. At the beginning of an infectious disease disaster when the agent may not have been identified or when there is not enough evidence to determine the disease transmission route, EMS system responders and ICOs need to base infection prevention decisions for patient care on syndromes and symptomology. This is referred to as syndrome based isolation/control measures. These measures are especially important during an infectious disease disaster involving a newly emerging infection because there may be limited or no information available on the causative agent. Infection prevention decisions were made on the basis of patients' symptoms, epidemiological information as it became available, and basic infection prevention principles.

During an infectious disease disaster in which hospitals will be full and potentially contagious patients may be triaged to alternate care sites (ACS), emergency responder agencies should consider educating the public regarding how to implement basic infection prevention strategies in nonhospital settings. This may include isolation and PPE use in long-term care, alternate care sites, home health, medical clinics, community-based evacuation shelters, and any other care sites that administers healthcare services or houses potentially contagious patients.

Protection of Emergency Medical Services Personnel

EMS personnel should be educated regarding appropriate PPE to use during an infectious disease disaster and ensure that adequate PPE supplies are available. This includes choosing the appropriate PPE to wear for patient care activities as well as when handling suspicious letters or packages that may contain infectious particles.

EMS personnel should be educated regarding how to handle suspicious letters or packages to reduce their risk of exposure while maintaining chain of custody for the purposes of investigating potential bioterrorism incidents. PPE and other medical supplies are expected to be insufficient or depleted during an infectious disease disaster. PPE allocation should be made based upon the known or suspected risk of exposure during patient care procedures, and on the risk of disease for each worker. For example, aerosolizing procedures, such as cardiopulmonary resuscitation and providing nebulizer treatments, pose a high risk of exposure during outbreaks involving an airborne or droplet spread disease.

During events when PPE is limited, EMS agencies should consider prioritizing staff performing aerosolizing procedures to receive N95 respirators or other respiratory protection.

Whenever possible, EMS agencies should develop a pre-event memorandum of agreement (MOA) or memorandum of understanding (MOU) with vendor(s) to ensure access to PPE and other medical supplies during a disaster. MOAs and MOUs will be most critical in preparing for biological disasters.

Pandemic Guidelines for EMS Activation Levels:
Pandemic EMS Alert Levels will be declared by the local/regional/state ESF 8 in consultation with the Florida Department of Health. The demand may outstrip supply and/or resources. Asymmetric pandemic may overwhelm local, regional, state systems.

There are three areas that cause progression between the levels:

Volume The increased volume of patients entering the system because of actual flu, suspected flu symptoms, or flu "scare".

Capacity The reduced capacity of the receiving facilities due to ED overflow, increased admission, and/or their reduction in professional staff due to their own infection or quarantining.

Response The need to reduce (or even eliminate) mobile response due to increased 9-1-1 volume, reduced numbers of response personnel, and/or reduced receiving facility resources and capacity.

Each agency shall determine the operational level as referenced below. As the levels accelerate, the impacts on EMS and the health care system will increase.

The pandemic phases reflect WHO's risk assessment of the global situation regarding each virus with pandemic potential that is infecting humans. These assessments are made initially when a viruse is identified and are updated based on evolving virological, epidemiological and clinical data. The phases provide a high-level, global view of the evolving picture.

The global phases – interpandemic, alert, pandemic and transition – describe the spread of the new virus subtype, taking account of the disease it causes, around the world. As pandemic viruses emerge, countries and regions face different risks at different times. For that reason, countries are strongly advised to develop their own national risk assessments based on local circumstances, taking into consideration the information provided by the global assessments produced by WHO. Risk management decisions by countries are therefore expected to be informed by global risk assessments, but based on local risk assessments.

The risk-based approach to pandemic phases are represented in figure **1** as a continuum, which also shows the phases in the context of preparedness, response and recovery, as part of an all-hazards approach to emergency risk management. One of the underlying principles of this guidance is to acknowledge that emergency risk management at country level needs to be sufficiently flexible to accommodate different consequences within individual countries, for example, different severities and different numbers of waves of illness.

EMS Activation Phases For Pandemic

Pandemic Phase: For All transmissions: Airborne, Bodily Fluid/ Bloodborne, and Other

Administrative Guidelines for EMS Activation Levels:

LEVEL 1 - PLANNING AND PREPARATIONS

Using routine, daily activities, write contingency plans for a pandemic event based on projected expectations.

Agency will provide infection control recommendations, including respiratory protection measures, in consultation with the Centers for Disease Control and Prevention (CDC), and other state and federal organizations.

Agency will promote disease specific education of healthcare providers on the importance of respiratory etiquette and hand hygiene.

Plan and execute training on plan. Update as needed.

LEVEL 2 - REVIEW AND UPDATE PANDEMIC PLAN

- Review plan, update as needed for current situation and institute training on updates.
- Response plan (using NIMS) to be coordinated with local emergency management plans.
- Agency will recommend infection control guidelines for triaging patients entering the healthcare system (e.g., emergency departments, clinics, emergency medical services, physician offices), including spatial separation and masking (with a surgical mask) of potentially infected patients.
- Agency's Medical Director will collaborate with local health department, healthcare providers, and healthcare organizations to identify best practices of infection control for seasonal influenza.
- These best practices will be communicated to agency staff through multiple channels. The Medical Director will provide technical expertise with CDC and WHO.
- Review and order additional PPE and other identified supplies to meet the expected need should the event continues or escalates.

LEVEL 3 - ELEVATED CONDITIONS OF PANDEMIC ACTIVITY

Communications/Dispatch:

- Continue with any unfinished items from "Planning & Preparations." Continue daily surveillance of "Infectious Disease" patient calls for service.
- Callers will be asked on every "Breathing" Problems" and "Sick" person" if the patient has a "fever" or "cough."

- When calls for EMS response include symptoms of fever and cough (Febrile Respiratory Illness), continue notification to responding units of symptoms and "**EIDS (emerging infectious disease surveillance) Tool PPE advised**." (EMD Protocol 36 will be activated)

EMS Systems (Field Units):

- Continue with any unfinished items from "Planning & Preparations."
- Review plan and consider implementation of employee screening for symptoms, temperature and exposure.
- Implement mandatory personal protection guidelines when responding to possible pandemic patients:
  - ✓ Based on current dispatch guidelines.
  - ✓ Dispatch will alert responding crews.
  - ✓ Crews also mandated to implement protection if patient displays specific S & S.
  - ✓ Review plans to manage increased volume of bio-hazard infectious waste.

Medical Directors:

- Review and revise Pandemic Plan Guidelines Standing Orders as needed.
- Confirm and test "chain-of-communication" with respective agency.
- Complete "Planning and Preparations" activities
- Provide specific pandemic training and continuing education as required.

LEVEL 4 - HIGH CONDITIONS OF PANDEMIC ACTIVITY

Communications/Dispatch:

- Begin asking about presence of fever and cough, exposure to ill individuals, or travel to affected regions with all callers. Continue to relay this information to responding units with the direction, "**EIDS (emerging infectious disease surveillance) Tool used or PPE advised**."
- Monitor call volume and work load. Consider implementing an alternative staffing plan for dispatchers and call receivers, rescue/ambulance crews.
- Consider screening of employees coming to work for exposure, symptoms and temperature.
- Survey employees' availability for work.
- Review facility plan. Ensure availability of needed medical and non-medical items at stations to support extended operations.
- Emotional and/or psychological support may be needed for personnel after an infectious disease exposure and/or pandemic response this may be accomplished through Critical Incident Stress Management (CISM) or Employee Assistance Program (EAP).

***EMS Systems (Field Units)*:**

- Review implementation of Level 1 operational changes.
- Implement mandatory personal protection guidelines on all responses masks, goggles, gloves, gowns, etc..
- Minimize time spent in infectious environment.

- Minimize number of people in close contact with patient.
- Increase efforts at personal hygiene and decontamination.
- Decontaminate EMS equipment and vehicle
- Based on call volume and workloads, consider implementing alternative staffing plan
- Begin screening employees coming to work for symptoms, temperature, and exposure to ill patients.
- Continually survey employees' availability.
- Ensure availability of needed medical and non-medical items at stations to support sustained operations.
- Patient care will be according to modified response, treatment, and transportation plans as directed by Medical Director.

    - ✓ No response to minor complaints.
    - ✓ BLS response too many previous ALS calls.
    - ✓ Possible pandemic flu patients transported to designated hospital, if identified.

- Review and begin to practice agency "facilities plan, "to ensure vehicle equipment and personnel decontamination prior to entering station living quarters.
- Station quarters, including offices, "day room" and bunk rooms should be considered "sterile environment", with adequate decontamination of personnel required before entering. If the haz-mat environment is applied to this concept:

    - ✓ Scene is considered "hot zone
    - ✓ Truck bays and de-con areas are "warm zones"
    - ✓ Living quarters are "cold zones"

Assess volume of bio-hazard, infectious waste for increased vendor pick-ups or storage

Medical Directors:

- Coordinate treatment and transportation options.

LEVEL 5 - SEVERE CONDITIONS OF PANDEMIC ACTIVITY

Communications/Dispatch:

Monitor daily instructions and direction from agency Medical Director.
Consider Activating Pandemic Plan Standing Orders as directed by agency Medical Director:
Consider "Reduction of Service" policies, response may be according to need and availability of resources, up to and including the following:

1. No EMS response to minor complaints.
2. BLS response for many previous ALS calls, which could include staffing driver/EMT, rather than EMT/EMT, or EMT/Paramedic.
3. Possible pandemic flu patients transported to designated hospitals or alternate care site (ACS).
4. Consider securing facility.

5. Emotional and/or psychological support may be needed for personnel after an infectious disease exposure and/or pandemic response this may be accomplished through Critical Incident Stress Management (CISM) or Employee Assistance Program (EAP).

Consider work schedule changes that may include the fact that personnel may be called to report to duty for an undefined period of time.
Alternate facilities may serve as living quarters for those on duty for extended shifts, to minimize traveling to and from home.

EMS Systems (Field Units):

Consider activating Pandemic Plan Guidelines for Treatment Standing Orders as directed by agency Medical Director. EMS personnel may respond, treat and transport patients according to Pandemic Plan instructions.

Consider implementing agency's infection control policy to ensure vehicles, equipment and personnel are decontaminated before personnel enter station living quarters. A single site for decontamination activities might be preferred, which would offer security; vehicle and equipment decon supplies and personal hygiene facilities. Additional storage for accumulations of bio-hazard, infectious waste may need to be designated.

Consider implementing alternative staffing plans:

1. Personnel may be called to report to duty for an undefined period of time.
2. Stations may serve as living quarters for those on duty for extended shifts, to minimize traveling to and from home.

Response may be according to need and availability of resources, up to and including the following:

1 No EMS response to minor complaints.
2 BLS response for many previous ALS calls, which could include staffing driver/EMT, rather than EMT or EMT/Paramedic.
3. Possible pandemic flu patients transported to designated hospital or ACS.
4. Consider securing facility.
5. Consider work schedule changes that may include the fact that personnel may be called to report to duty for an undefined period of time.
6. Alternate facilities may serve as living quarters for those on duty for extended shifts, to minimize traveling to and from home.

LEVEL - 6: OVERWHELMING IMPACT ON EMS AND MEDICAL SYSTEMS

Communications/Dispatch:

Monitor daily instructions and direction from agency Medical Director and advise EMS field units.
Implement "Reduction of Service" policies, response will be according to need and availability of resources, up to and including the following:

- No EMS response to minor complaints.
- BLS response for many previous ALS calls, which could include staffing driver/EMT, rather than EMT, or EMT/Paramedic.
- Possible pandemic flu patients transported to designated hospital or ACS.

Fully activate facility plan and implement alternative staffing model:

- Secure facility.
- Personnel may be called to report to duty for an undefined period of time.

Alternate facilities may serve as living quarters for those on duty for extended shifts, to minimize traveling to and from home.

EMS Systems (Field Units):

Activate Pandemic Plan Standing Orders when directed by agency Medical Director.
EMS personnel will respond, treat and transport patients according to Pandemic instructions.

Implement agency's infection control policy to ensure vehicles, equipment and personnel are decontaminated before personnel enter station living quarters. A single site for decontamination activities might be preferred, which would offer security; vehicle and equipment decon supplies and personal hygiene facilities. Additional storage for accumulations of bio-hazard, infectious waste may need to be designated.

Implement alternative staffing plans:

1. Personnel may be called to report to duty for an undefined period of time.
2. Stations may serve as living quarters for those on duty for extended shifts, to minimize traveling to and from home.
3. Utilize private/municipal/county school bus employees as alternate drivers.

Medical Directors:

Direct activation of Pandemic Standing Orders.

(Optional) Model Reduction of Service

PURPOSE/REFERENCES:

To authorize an alternative form of medical instruction for callers during a pandemic in which EMS service may be reduced. This may be due to overwhelming increases in demands for service, decreased or unavailable resources and/or no available regional transport destinations.

POLICY:

When an event or conditions impact our ability to manage the calls for service, these guidelines shall be implemented to assist the caller during a pandemic.

Depending on available resources there may be outside service options, i.e. Public Health information line through 211, 311 or, CDC, etc. for callers who need instructions on how to deal with the ill, dying or deceased.

Appendix 1: Definitions, Acronyms and Abbreviations

211/311 Help lines: Telephone line that is used for general information by the public.

Airborne: A transmission mechanism in which the infectious agent is spread as an aerosol and usually enters a person through the respiratory tract

ALS: Advanced Life Support

ALT: Blood test to measure a liver-specific enzyme which indicates liver cell death or inflammation.

Alternate Care Site (ACS): ACS may be set up to care for patients with pandemic illness. ACS could be established in schools, churches, public buildings, or free standing shelters. The ACS could be set up through a hospital, Public Health or volunteer agencies to care for the sick.

AGMP: Aerosol Generating Medical Procedure

APR: Air-purifying respirator

Avian (or Bird) Flu: Is caused by the H5N1/ or other identified influenza virus that may occur naturally among wild birds. This type of flu virus can be deadly to domestic fowl and can be transmitted from birds to humans.

Blood borne: Carried or transmitted by the blood

Bloodborne Pathogens: Means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

BLS: Basic Life Support

BSI: Body Surface Isolation

Body Fluid: bodily fluid or secretion of fluid such as blood, semen, saliva, intercellular and interstitial fluids.

CAD: Computer Aided Dispatch Center

CDC: Center Disease Control-works 24/7 to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same.

CHEMPACK: CDC's Division of Strategic National Stockpile (SNS) launched in 2003, which provides antidotes (three countermeasures used concomitantly) to nerve agents for pre-positioning by State, local, and/or tribal officials throughout the U.S. CHEMPACK Program is envisioned as a comprehensive capability for the effective use of medical countermeasures in the event of an attack on civilians with nerve agents.

CISM: Critical Incident Stress Management

Contaminate: means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

CRI: Cities Readiness Initiative

Decontamination: means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

DOH: Florida Department of Health.

EAP: Employee Assistance Program

EIDS: Emerging Infectious Disease Surveillance

EOC: Emergency Operations Center

EMS: Emergency Medical Service

Engineering Controls: Means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

Epidemic: A localized outbreak of an infectious disease

EPA: Environmental Protection Agency

Febrile Respiratory Illness: Patients presenting with cough, and fever. Fever indicates infection. Cough may indicate contagiousness.

Flu Classifications: The H number in the name refers to the viral hemagglutinin protein, while the N refers to the type of neuraminidase enzyme on the surface of the virus. Both the hemagglutinin and the neuraminidase are involved in the infection process. There are 16 different types of hemagglutinins and 9 different types of neuraminidases. Other influenza viruses include: H1N1 – H1N2 – H2N2 – H2N3 – H3N1 – H3N2 – H3N8 – H5N1 – H5N2 – H5N3 – H5N8 – H5N9 – H7N1 – H7N2 – H7N3 – H7N4 – H7N7 – H9N2 – H10N7

Haz-Mat: Hazardous Materials

HBV: Hepatitis B virus

HCV: Hepatitis C virus

HEPA: High Efficiency Particulate Air Filter, mask or filter.

HEPA Masks: A personal protective device worn on the face to remove particles equal to and greater than 0.3 microns (which essentially includes all bacteria, spores and viruses).

HIPAA: Health Insurance Portability and Accountability Act

HIV: Human immunodeficiency virus

ICO: Infection Control Officer

ID: Infectious Disease

ILI: Influenza Like Illness

Isolation: Sequestration of patients with infectious disease to prevent pathogen spread.

MCI: Mass/Multiple Casualty Incident.

MOA/MOU: Memorandum of Agreement/ Memorandum of Understanding

MRSA: Methicillin-resistant *Staphylococcus aureus*

MSDS: Material Safety Data Sheets

NIOS: National Institute for Occupational Safety

NIOSH: The National Institute for Occupational Safety and Health

NIMS: National Incident Management System, a national incident management system that allows agencies of different disciplines and jurisdictions to work together during times of crisis or disaster.

N95/N100 Masks: NIOSH rated particulate respirators.

OSHA BBP: Occupational Safety and Health Adm. Blood Borne Pathogen Precautions.

PAID: Patient Area Isolation Device

Pandemic Flu: Is virulent human flu that causes a global outbreak - or "pandemic" - of serious illness; the spread of a disease throughout a country, continent, or the world. Because there is little and/or natural immunity, the disease can spread easily from person to person.

Pandemic World Health Organization (WHO) Phases:

Interpandemic Phase: This is the period between influenza pandemics.

Alert Phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur.

Pandemic phase: This is the period of global spread of human influenza caused by a new subtype. Movement between the interpandemic, alert and pandemic phases may occur quickly or gradually as

indicated by the global risk assessment, principally based on virological, epidemiological and clinical data.

Transition Phase: As the assessed global risk reduces, de-escalation of global actions may occur, and reduction in response activities or movement towards recovery actions by countries may be appropriate, according to their own risk assessments.

PAPR: Powered Air-Purifying Respirator

PEP: Post Exposure Prophylaxis medication.

Plan P: Standing orders specific to the EMS response to pandemic patients.

PPD: A method of assessing whether someone has become infected with M. tuberculosis complex. The test involves measurement of a subject's immune response to an injection of tuberculin purified protein derivative (PPD) manufactured from killed Mycobacterium tuberculosis bacilli. Also referred to as tuberculin skin tests or PPD test.

PPE: Personal Protective Equipment. Fit-tested HEPA masks, gloves, gowns, shields, eye protection.

PSA: Public Service Announcements.

QuantiFERON-TB Gold In-Tube test (QFT): Is a highly-specific controlled blood test for use an aid to the diagnosis of infection with bacteria responsible for TB and provides results showing an individual's T-cell response to highly specific antigens from the TB bacterium.

Quarantine: Sequestration of individuals who have been exposed to infectious disease, but are not symptomatic, until a determined incubation period has passed.

Qualitative HCV-RNA: Blood test to detect the presence of Hepatitis C virus.

S & S: Signs and Symptoms.

SARS - Severe Acute Respiratory Syndrome

SCBA: Self Contained Breathing Apparatus

Seasonal (or common) Flu: is an annual, recurring respiratory illness that can be transmitted person to person. Most people have some immunity and a vaccine is usually available.

SNS: Strategic National Stockpile

Standard Precautions: Precautions that should be utilize on all patient contact, based on the principle that all blood, body fluid secretions, excretions except sweat, nonintact skin, and mucous membranes may contain infectious diseases. Implementation of Standard Precautions constitutes the primary strategy for the prevention of healthcare-associated transmission of infectious agents among patients and healthcare personnel, also known as Universal Precautions.

Swine Flu: It is caused by the H1N1 influenza virus. This influenza strands are variations of swine, avian (bird) and human flu. The virus number corresponds with the levels of hemagglutinin protein (H) and neuraminidase enzyme (N).

Vector: Is an organism, such as a mosquito or tick that carries disease-causing microorganisms from one host to another.

Vesicle Fluid: The serum from the blister formed during a varicella zoster infection.

WHO: World Health Organization.

VZIG: Varicella Zoster Immune Globulin.

Appendix 2

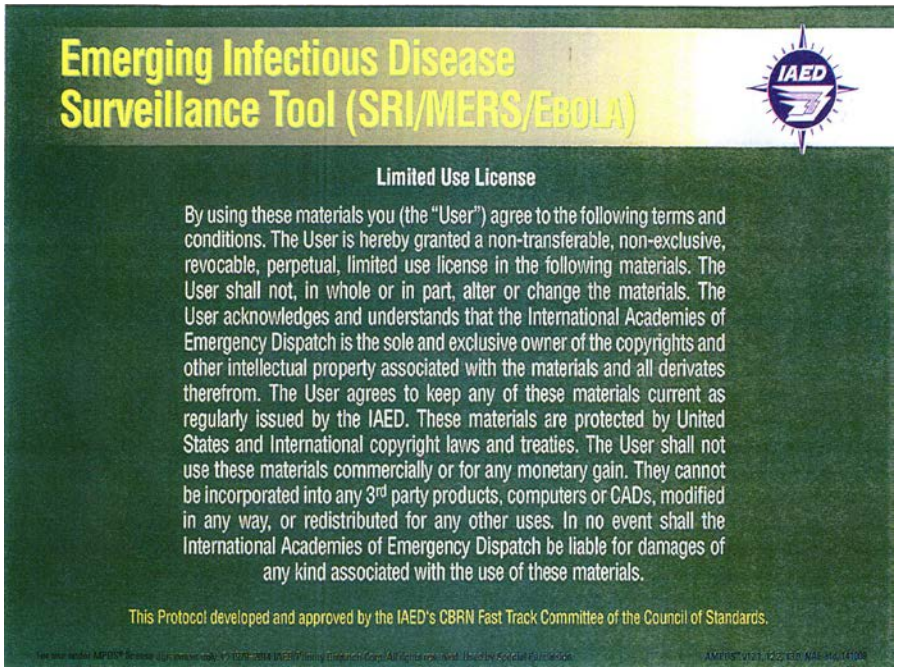
INFECTIOUS EXPOSURE REFERENCE SHEET 2014

AIRBORNE DROPLET	Transmission	Prevention	Post Exposure	Follow Up
Tuberculosis (TB)	Droplets: coughing, sneezing, intubation, suctioning, mouth to mouth resuscitation.	Annual PPD or Quantiferon Wear HEPA / N-95 masks.	Source=PPD, or Quantiferon Employee= PPD unless PPD tested within prior 12 weeks or previously PPD reactive or Quantiferon.	PPD at week 12 post exposure. If new positive: CRX and Rx with Isoniazid (INH) for 9 months.
Meningitis bacterial/viral	Droplets: coughing, sneezing, intubation, suctioning.	Wear HEPA mask.	Antibiotics: Cipro, Rocephin, Rifampin.	Seek medical care if symptoms of meningitis develop: fever, stiff neck, severe headaches.
Influenza	Close contact, droplets: coughing, sneezing, intubation, suctioning.	Annual Flu Vaccine. Hepa mask	Treatment: analgesics, Rimantadine,Tamiflu, Relenza.	As determined by medical professional.
Varicella Zoster (Chicken Pox)	Close contact, droplets: coughing, sneezing, intubation, suctioning. Also direct contact with vesicle fluid.	Vaccine=1 shot (Varivax). HEPA mask. BSI	Treatment: Varicella Zoster Immune Globulin (VZIG) within 96 hours of exposure.	As determined by medical professional.

BLOODBORNE	Transmission	Prevention	Post Exposure	Follow Up
HIV	Percutaneous, Mucous Membranes, and Non Intact Skin,	OSHA BBP, BSI. No Vaccine.	See PEP Flow Chart.	Periodic screening: 6, 12, 26 weeks after exposure.
Syphilis	Percutaneous, Mucous Membranes, and Non Intact Skin,	OSHA BBP, BSI No Vaccine.	Source=RPR, Employee=RPR. RX Penicillin.	Repeat test at 3 and 6 months, if positive refer for FTA
HBV	Percutaneous, Mucous Membranes, and Non Intact Skin,	Vaccine=3 shot series. Titer and reimmunize if necessary. OSHA BBP, BSI	Source=Acute Hep panel. Employee=Acute Hep panel. If source positive, employee not immune: administer immune globulin and consider vaccine series at this time.	If unvaccinated, periodic screening: 6, 12, 26 weeks after exposure. If positive titer no further TX is needed.
HCV	Percutaneous, Mucous Membranes, and Non Intact Skin,	No Vaccine. OSHA BBP, BSI	Source=Acute Hep Panel. Employee=Acute Hep Panel.	Periodic screening: 6, 12 and 26 weeks after exposure. If source positive, consider employee qualitative HCV RNA & ALT testing 6 weeks post exposure. If employee becomes HCV RNA positive, treat as determined by medical professional.

BLOODBORNE	Transmission	Prevention	Post Exposure	Follow Up
HAV	Fecal/Oral. Also, has blood to blood precautions.	Vaccine = 2 shot series. OSHA BBP, BSI. Caution of food /water cleanliness.	Source=Acute Hep Panel. Employee=Acute Hep Panel. If source positive, employee not-immune: administer immune globulin and consider HAV vaccine.	Periodic screening: 12 weeks after exposure or if symptoms occur. If positive titer no further TX is needed.
Tetanus	Soiled object causing open wound.	Vaccine good for 10 years.	If no vaccine, administer at this time.	Seek medical care if symptoms of tetanus develop: lockjaw, rigid muscles.
Lyme Disease	Tick-borne: tick attached 24 hours.	Avoid tick infested areas. Vaccine=3 shot series for prone areas.	Antibiotics: Amoxicillin, Doxycycline	As determined by medical professional.
Methicillin-Resistant Staphylococcus Aureaus (MRSA)	Direct contact: Skin, open sores, vesicles, mucous membranes, bedding/clothing, nursing homes	BSI	Clean, disinfect. Alcohol based antibacterial hand cleaners. If illness presents seek medical attention.	As determined by medical professional.
Scabies	Direct contact: mite infested areas, bedding/clothing, nursing homes	Avoid infested areas.	Lindane or Kwell applied to the whole body overnight.	Close supervision of treatment including bathing.
Rabies	Virus laden saliva of infected animal: animal bites.	Avoid animal bites.	Wash affected areas. Administer rabies anti-serum injection and first dose of rabies vaccine. Contact animal control, monitor animal for presence of infection.	Continue to treat employee with vaccine series.

Appendix 3: Broward County Communications Sick Person's/Emerging Infectious Disease Surveillance (EIDS) Tool



Emerging Infectious Disease Surveillance Tool (SRI/MERS/Ebola)

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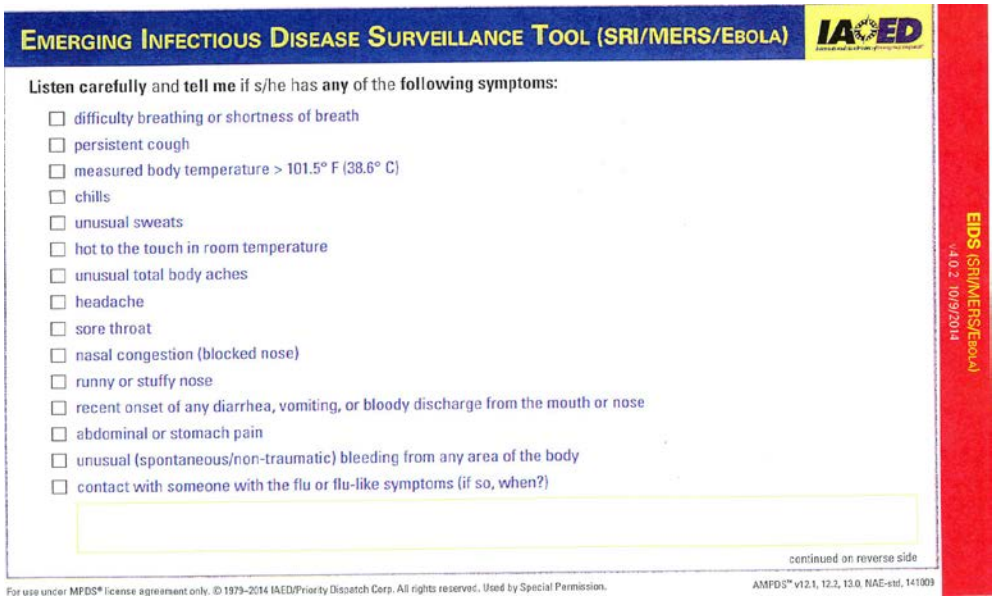
This Protocol developed and approved by the IAED's CBRN Fast Track Committee of the Council of Standards.



EMERGING INFECTIOUS DISEASE SURVEILLANCE TOOL (SRI/MERS/EBOLA) IAED

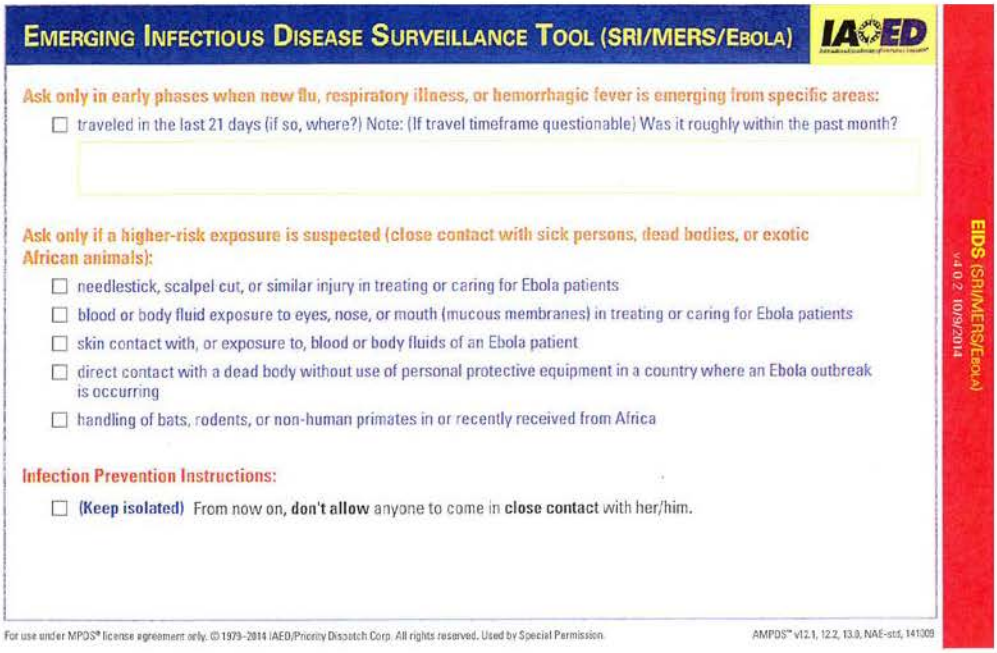
Listen carefully and **tell me** if s/he has **any** of the **following symptoms:**

- ☐ difficulty breathing or shortness of breath
- ☐ persistent cough
- ☐ measured body temperature > 101.5° F (38.6° C)
- ☐ chills
- ☐ unusual sweats
- ☐ hot to the touch in room temperature
- ☐ unusual total body aches
- ☐ headache
- ☐ sore throat
- ☐ nasal congestion (blocked nose)
- ☐ runny or stuffy nose
- ☐ recent onset of any diarrhea, vomiting, or bloody discharge from the mouth or nose
- ☐ abdominal or stomach pain
- ☐ unusual (spontaneous/non-traumatic) bleeding from any area of the body
- ☐ contact with someone with the flu or flu-like symptoms (if so, when?)

continued on reverse side

AMPDS™ v12.1, 12.2, 13.0, NAE-std, 141009

EIDS (SRI/MERS/Ebola) v.4.0.2 10/9/2014



Emerging Infectious Disease Surveillance Tool (SRI/MERS/Ebola)

IAED

Ask only in early phases when new flu, respiratory illness, or hemorrhagic fever is emerging from specific areas:

- ☐ traveled in the last 21 days (if so, where?) Note: (If travel timeframe questionable) Was it roughly within the past month?

Ask only if a higher-risk exposure is suspected (close contact with sick persons, dead bodies, or exotic African animals):

- ☐ needlestick, scalpel cut, or similar injury in treating or caring for Ebola patients
- ☐ blood or body fluid exposure to eyes, nose, or mouth (mucous membranes) in treating or caring for Ebola patients
- ☐ skin contact with, or exposure to, blood or body fluids of an Ebola patient
- ☐ direct contact with a dead body without use of personal protective equipment in a country where an Ebola outbreak is occurring
- ☐ handling of bats, rodents, or non-human primates in or recently received from Africa

Infection Prevention Instructions:

- ☐ **(Keep isolated)** From now on, **don't allow** anyone to come in **close contact** with her/him.

EIDS (SRI/MERS/Ebola) v4.0.2 10/9/2014

AMPDS™ v12.1, 12.2, 13.0, NAE-std, 141009

Appendix 4: Infectious Disease Exposure Form

INFECTIOUS DISEASE EXPOSURE FORM (check one) Significant ☐ Non-Significant ☐

Agency Name:	Case/Alarm, Run or Report #:	Exposure Date:	Exposure Time:

EXPOSED EMPLOYEE INFORMATION

Last Name:	First Name:
Address:	City, State, Zip:
Contact Phone #:	Work Phone #:
Employer Name:	Date of Birth:

Employment Category (check one): EMS ☐ Fire/Rescue ☐ Law Enforcement ☐ Other ☐ (specify):

Any Previous Exposures? No ☐ Yes ☐ - Exposure Date (treatment purposes):

SOURCE INFORMATION - (the person you came in contact with)

Source History (check all that apply): HIV/AIDS ☐ Hepatitis - A ☐ B ☐ C ☐ Meningococcal Infection ☐ TB ☐

Varicella (chicken pox/shingles) ☐ Other ☐ (specify):

Source Last Name:	First Name:	Middle Initial:
Home Address:	City, State, Zip:	
Contact Phone #:	Work Phone #:	
Occupation:	Date of Birth:	Gender: Male ☐ Female ☐

EXPOSURE DESCRIPTION

What fluid were you in contact with? (check all that apply): Blood/Serum ☐ Any fluid visibly contaminated with blood ☐

Pleural ☐ Amniotic Fluid ☐ Peritoneal ☐ Vomit ☐ Synovial ☐ Cerebrospinal Fluids ☐ Uterine/vaginal secretions ☐

Semen ☐ Feces ☐ Urine ☐ Saliva ☐ Cough Spray/Sputum ☐ Other Fluids ☐ (describe):

What was the method of contact? (check all that apply): Needlestick/Sharps ☐ Laceration ☐ Abrasion ☐ Bite ☐ Splash ☐

Contaminated object ☐ (specify): Other ☐ (specify):

List all body areas exposed: Eyes ☐ Nose ☐ Mouth ☐ Other ☐ (specify):

Nonintact Skin (cut, chapped or abraded skin): ☐ more than 24-hrs old ☐ less than 24-hrs old

List any personal protective equipment used at time of exposure: ☐ Gloves ☐ Tyvex Sleeves ☐ Eye protection ☐ Mask

Other ☐ (specify):

What immediate action was taken in response to the exposure to remove the contaminant? (check all that apply): Washed area ☐ Eye/nose/mouth flush ☐ Other ☐ (specify):

Did you seek medical attention? No ☐ Yes ☐ (If yes, next section must be completed)

TO BE COMPLETED BY THE MEDICAL FACILITY

Facility Name:		Attending Physician:
Date of arrival:	Time of arrival:	Approx. time elapsed since exposure:

Testing (check all that apply): PPD/Quantiferon ☐ Chest X-Ray ☐ Acute HEP Panel (HAV/HBV/HCV) ☐ HIV ☐ PPP ☐

Other ☐ (specify):

Was treatment provided? No ☐ Yes ☐ - (specify):

Was medication/prescription given? No ☐ Yes ☐ - (specify):

Follow-up?

SIGNATURES

Employee Signature:	Date:
Infection Control Officer/Designee Signature:	Date:

Rev. 3/2014

Appendix 5: Pre-Hospital Post Exposure Handbook

WHAT YOU NEED TO KNOW

Pre-Hospital Post Exposure Significant Exposure Guide

Introduction:

If you are reading this, you have been involved in some type of exposure. This was designed as a tool to help you through the process. There is some important information here, which may calm your fears and anxiety.
(The following article was written by a group of 10 different doctors from the San Francisco metropolitan area)

Risk of Transmitting the Human Immunodeficiency Virus, and Hepatitis B Virus to Health Care Workers Exposed to Patients with AIDS

This prospective cohort study was designed to evaluate the risk of occupational transmission of Human Immunodeficiency Virus (HIV), and Hepatitis B virus (HBV), to health care workers **with intensive exposure to HIV-infected patients**. 75% of the 270 subjects had been exposed to patients with AIDS for at least one year before enrollment, 18% worked in specialized AIDS units, and 35% sustained a total of 342 accidental parenteral exposures to HIV-infected body fluids.
None of the 175 subjects retested 10 months later had acquired the HIV antibody!

These results indicate that health care workers are at minimal risk for HIV, and HBV transmission from occupational exposure to patients with AIDS, even when intensively exposed for prolonged periods of time.

So take a deep breath. Let's move on…

What To Do Immediately After an Exposure:

1. Wash the penetration site with soap and water
2. Flush splashes to the nose, mouth, or skin with water
3. Irrigate eyes with clean water, or saline

Note: No scientific evidence shows that using antiseptics or squeezing the wound will reduce the risk of transmission of a bloodborne pathogen. Using a caustic agent such as bleach is not recommended.

How Are We Getting Exposed?

*Percutaneous injuries (injuries through the skin) with contaminated sharp instruments such as needles and scalpels (82%)
*Contact with mucous membranes of the eyes, nose, or mouth (14%)
*Exposure of broken or abraded skin (3%)
*Human bites (1%)

Needlestick Exposure:

Needlestick Injuries are the most common type of pre-hospital exposures and considered the most dangerous.

The Good News: Fortunately, most needlestick injuries do not result in exposure to an infectious disease, and of those that do, the majority do not result in the transmission of infection.

The Bad News: Needlestick exposures were associated with 89% of the documented work related acquired infections.

It is estimated that annually there are 66,000 infections with HBV, 16,000 with HCV, and 1,000 with HIV worldwide. In addition, a needlestick injury may lead to significant stress and anxiety for the affected injured person.

Hepatitis B carries the greatest risk of transmission, with 37 to 62% of exposed workers eventually showing seroconversion and 22 to 31% showing clinical Hepatitis B infection. The hepatitis C transmission rate has been reported at 1.8%, but newer, larger surveys have shown only a 0.5% transmission rate. The overall risk of HIV infection after percutaneous exposure to HIV-infected material in the health care setting is still 0.3%.

The specific risk of a single injury depends on a number of factors when the patients harbor the virus of concern. Injuries with a hollow-bore needle, deep penetration, visible blood on the needle, a needle that was located in a deep artery or vein, or with blood from terminally ill patients are known to increase the risk for HIV infection.

While the vast majority of needlestick injuries occur when the source-person does not carry the HBV, HCV, and HIV and thus do not carry a risk of infection, these events nevertheless cause stress and anxiety and signal a breakdown in protocol and prevention.

Important: Needlestick injuries may occur not only with freshly contaminated sharps, but also, after some time, with needles that carry dry blood. While the infectiousness of HIV and HCV decrease within a couple of hours, HBV remains stable during desiccation and infectious for more than a week.

What You Need To Know about a Mucous Membrane Exposure:

The risk of converting after being exposed to a Mucous Membrane is very small. There is a 0.09 % risk of **HIV** transmission after a mucous membrane exposure to HIV infected blood. The risk of transmission of **Hep B** and **Hep C** has not been documented well. It is believed that it is less than in a percutaneous injury, but it is not negligible.

What body fluids are potentially infectious during an occupational exposure?

When evaluating occupational exposures to fluids that might contain Hepatitis B virus (HBV), Hepatitis C virus (HCV), or Human Immunodeficiency Virus (HIV), health care workers should consider that all blood, body fluids, secretions, and excretions contain transmissible infectious agents. Blood contains the greatest proportion of infectious bloodborne virus particles of all body fluids and is the most critical

transmission vehicle in the health-care setting. If blood is not visible within the fluid, it is still likely that very small quantities of blood are present, but the risk for transmitting HBV, HCV, or HIV is extremely small in this situation. Despite this small transmission risk, a qualified health care professional should evaluate any occupational exposure to fluids, regardless of visible blood.

HIV Facts:

What is HIV?

HIV (human immunodeficiency virus) is the virus that causes AIDS. This virus may be passed from one person to another when infected blood, semen, or vaginal secretions come in contact with an uninfected person's broken skin or mucous membranes*. In addition, infected pregnant women can pass HIV to their baby during pregnancy or delivery, as well as through breast-feeding. People with HIV have what is called HIV infection. Some of these people will develop AIDS as a result of their HIV infection.

What is AIDS?

AIDS stands for Acquired Immunodeficiency Syndrome.
Acquired – means that the disease is not hereditary but develops after birth from contact with a disease causing agent (in this case, HIV).
Immunodeficiency – means that the disease is characterized by a weakening of the immune system.
Syndrome – refers to a group of symptoms that collectively indicate or characterize a disease. In the case of AIDS this can include the development of certain infections and/or cancers, as well as a decrease in the number of certain cells in a person's immune system.

What causes AIDS?

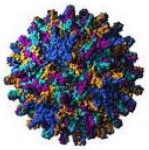
AIDS is caused by infection with a virus called human immunodeficiency virus (HIV). This virus is passed from one person to another through blood-to-blood and sexual contact. In addition, infected pregnant women can pass HIV to their babies during pregnancy or delivery, as well as through breast-feeding. People with HIV have what is called HIV infection. Some of these people will develop AIDS as a result of their HIV infection.

How does HIV cause AIDS?

HIV destroys a certain kind of blood cell (CD4+ T cells) which is crucial to the normal function of the human immune system. In fact, loss of these cells in people with HIV is an extremely powerful predictor of the development of AIDS. Studies of thousands of people have revealed that most people infected with HIV carry the virus for years before enough damage is done to the immune system for AIDS to develop. However, sensitive tests have shown a strong connection between the amount of HIV in the blood and the decline in CD4+ T cells and the development of AIDS. Reducing the amount of virus in the body with anti-retroviral therapies can dramatically slow the destruction of a person's immune system.

Hepatitis B Facts:

Hep B Question: What is it? Hepatitis B infection s a liver disease caused by the hepatitis B virus. Symptoms may include fever, lack of energy, nausea, vomiting, and abdominal pain followed by jaundice (yellow color to the skin or whites of the eyes and dark urine). Some persons, who have hepatitis B, including younger children, have no symptoms. A small number of hepatitis B infections are rapidly fatal. Although most infected persons recover completely, some develop chronic infection, and can spread this infection. Cirrhosis (scarring of the liver) and liver failure are serious risks with this disease, but may take decades to develop.
How common is hepatitis B?



There are 50 to 100 newly diagnosed acute hepatitis B cases in Washington each year and an estimated 20,000 persons chronically infected.

Hep B Question: How is it spread?

The virus is spread by blood, serum, or sexual fluids of an infected person even if the person has no symptoms. This can happen by sharing needles or having sex with somebody infected with hepatitis B. Transmission can also occur for people living together for a long time in the same household or institution. Infected women can pass the virus to their babies. Donated blood is now tested to prevent spreading hepatitis B but in the past some cases resulted from blood transfusion. Medical personnel are at risk of exposure due to needle sticks.

Hep B Question: How soon do symptoms appear?

Usually within 60 to 90 days of infection, but can take as long as six months

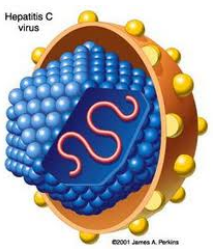
Hepatitis C Facts:

Hep C Question: What is it?

HCV infection is the most common blood-borne infection in the United States. Hepatitis C is a liver disease caused by the hepatitis C virus. Many persons who have hepatitis C have no symptoms. Symptoms may include fever, lack of energy, nausea, vomiting, abdominal discomfort and jaundice (yellow color to the whites of the eyes or skin and darkening of urine). Most infected persons develop chronic, long-term hepatitis C (carrier) and can spread the infection. Cirrhosis (scarring of the liver) and liver failure are serious risks with this disease, but may take decades to develop.

Hep C Question: How common is it?

It is estimated that almost 4 million persons in the U.S. are infected with hepatitis C. It accounts for most of the hepatitis cases that used to be referred to as non-A, non-B hepatitis. Hepatitis C is the leading cause for liver transplantation and accounts for nearly 8,000-10,000 deaths each year in the U.S.



Hep C Question: How is it spread?

The virus is spread mainly by direct contact with the blood from an infected person. About 80% of people who have ever injected street drugs and/or shared injection drug equipment are infected with hepatitis C. It can also be spread when health care workers are exposed to an infected person's blood, or through organ transplants or blood transfusions, especially those received prior to the development of a hepatitis C test in the early 1990s. Infected mothers can pass the virus to their babies but this is thought to occur at a low rate and accounts for about 5% of cases in the United States. The risk of sexual transmission also appears to be low, accounting for about 5% of cases in this country. Other persons at risk include kidney dialysis patients.

Hepatitis C is not spread by sneezing, coughing, hugging, sharing eating utensils or drinking glasses, or other casual contact. It is not spread by food or water.

Hep C Question: How soon do symptoms occur?

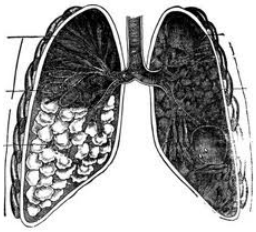
Many people with hepatitis C have no symptoms. If symptoms occur, they do so an average of six to seven weeks after exposure but may occur two weeks to six months after exposure.

Hep C Question: When and for how long is a person able to spread Hep C?

Some people carry the virus in their blood for the rest of their lives. Acute hepatitis C infection may be followed by recovery but usually becomes chronic and causes symptoms for years. An infected person with no symptoms can still spread hepatitis C to others.

Hep C Question: Is there a vaccine available?

Not yet. While there are vaccines for both hepatitis A and B, they do not provide protection against hepatitis C. There is no vaccine for hepatitis C because the virus changes easily, making it very difficult to develop an effective vaccine.



What I Need To Know About TB**:**

TB is considered a moderate exposure and not an immediate time sensitive issue. After being notified there has been an exposure, you must have a PPD within 10 days at a facility of your department's choosing to obtain a baseline. You will receive another PPD test to determine if you have been exposed. Tuberculosis exposure is detected through a test known by its initials, "PPD" which stands for Purified Protein Derivative. (*We all received this test after we were hired*.) In this test, a small amount of purified TB protein (which is not capable of causing disease) is injected just under the skin. If the body has been exposed to TB previously, the immune system will recognize and attack the protein, causing localized redness. A nurse or physician reads the test negative, or indeterminate. If the test is positive, the individual has most likely been exposed to TB at some point, and should be referred to an Infectious Disease doctor for treatment.

Update: In December 2002, the FDA approved a new TB blood test. This new test by Cellestis is called QuantiFERON-TB or QFT. QuantiFERON-TB is based on a blood test, it doesn't require a second visit and it eliminates reader bias or confusion common with the old TB test where people looked at their arms and wondered, "Is this really a positive or not?"
Source TESTING:

For Blood Borne Exposures…
The source will be tested for HIV and the various forms of hepatitis as soon as consent has been obtained. If it is impossible to draw blood from the source individual, but some other sample of his or her blood was drawn for any other reason, this sample legally can be used. If the source individual is unable or unwilling to give consent, the EMS organization should consider seeking the legal authority to act without his or her consent. This can be obtained through a court order.

Concerning bloodborne exposures, time is an issue. A Rapid HIV test should be conducted in "*hours, but not days*" from the time of the exposure. The use of rapid HIV testing has become the standard and has eliminated the need to place healthcare workers on very toxic drugs even for short periods of time. The test takes approximately thirty minutes to one hour to complete. This test is able to identify the HIV-1 antibody as soon as two weeks after an exposure.

Some protocols state that if the source of the exposure is found to be negative with a Rapid HIV test, the physician is not going to offer or prescribe treatment medications. The chances of converting HIV from a recent infection outweigh the potential risks of taking the "HIV Cocktail". But, you can still request treatment.

After your Rapid HIV test, you will have baseline blood tests drawn for Hep B and C. This may be done in the ER or at another facility on the following day per each department's protocols.

Question: What about exposures to blood from an individual whose infection status is unknown?

If the source individual cannot be identified or tested, decisions regarding follow-up should be based on the exposure risk and whether the source is likely to be a person who is infected with a bloodborne pathogen.

TREATMENT FOR YOUR EXPOSURE:

What is Post Exposure Prophylaxis (PEP)?

PEP is just what the name suggests: prophylaxis or preventative medications given after an exposure in hopes of decreasing the likelihood of infection from the exposure. The PEP medication combinations used depends on the degree of exposure and the status of the source of the exposure. But before any medications are prescribed, it has to be determined if PEP is indicated and appropriate.

<u>When is PEP Indicated?</u>
The following scenarios warrant PEP.

<u>Two Drug PEP Recommended:</u>

1. Exposure to asymptomatic HIV+ person by solid needle stick or superficial injury that break the skin.
2. A mucous membrane exposure to a large volume of HIV infected blood that's source is symptomatic.
3. A mucous membrane exposure to a small volume of HIV infected blood that's source is symptomatic.

<u>Three Drug PEP Recommended:</u>

1. Exposure to asymptomatic HIV+ person via deep puncture from a large bore hollow needle
2. A puncture from a needle with visible blood on the needle
3. A puncture from a needle used in a patient's vein or artery

<u>Two Drug PEP under Certain Circumstances:</u>

1. Needle stick with any type needle and any degree of exposure if the source has an unknown HIV status but has HIV risk factors
2. Needle stick with any type needle and any degree of exposure if the source has an unknown HIV status and unknown risk factors but a setting in which exposure to HIV+ persons is likely
3. A mucous membrane exposure to any volume of blood whose source has an unknown HIV status but has HIV risk factors
4. A mucous membrane exposure to any volume of blood whose source has an unknown HIV status but is in a setting where HIV exposure is likely

<u>NO PEP Warranted:</u>

1. Any needle stick injury involving a known HIV negative source
2. A mucous membrane exposure to any volume of HIV negative blood

Question: What Medication Combination is Used?

PEP regimens are chosen depending on the type of exposure. Typically regimens are prescribed for a four-week period. PEP should be started within hours of the potential exposure not days. The sooner PEP is begun the better.

Preferred Two-Drug Regimen:

1. Option One- **Combivir** (Retrovir + Epivir) twice daily is typically substituted for ease of administration. This twice a day regimen is a bit harder to take but is recommended in pregnancy.
2. Option 2- **Truvada** (Trenofovir + Emtricitabine) taken once daily. This one drug regimen is easier to take but does have the risk of liver toxicity.

Preferred Three-drug Expanded Regimen:

1. Basic two drug regimen option 1 or 2 above with the addition of **Kaletra** (Lopinavir + Ritonavir) twice daily.

The Last Word on PEP

PEP is a viable option for occupational exposures to HIV. While it is not without it's downfalls, it is effective in reducing the risk of HIV infection from a needle stick. But, without addressing the problem of needle sticks, more people are going to become infected by this route, health care cost will continue to rise and the epidemic will continue to grow

Treatment and Pregnancy:

HIV

Pregnancy should not rule out the use of post-exposure treatment when it is warranted. If you are pregnant you should understand what is known and not known regarding the potential benefits and risks associated with the use of antiviral drugs in order to make an informed decision about treatment.

HBV

Yes. Women who are pregnant or breast-feeding can be vaccinated against HBV infection and/or get HBIG (Hepatitis B immune globulin, which contains antibodies to hepatitis B virus and offers prompt but short lived protection.) Pregnant women who are exposed to blood should be vaccinated against HBV infection, because infection during pregnancy can cause severe illness in the mother and a chronic infection in the newborn. The vaccine does not harm the fetus.

TB

Pregnant women with TB must be given adequate therapy as soon as TB is suspected. The preferred initial treatment regimen is isoniazid, rifampin, and ethambutol (ethambutol may be excluded if primary isoniazid resistance is unlikely). Streptomycin should not be used because it has been shown to have harmful effects on the fetus. In addition, pyrazinamide should not be used routinely because its effect on the fetus is unknown. Because the 6-month treatment regimen cannot be used, a minimum of 9 months of therapy should be given. To prevent peripheral neuropathy, it is advisable to give pyridoxine (vitamin B_6) to pregnant women who are taking isoniazid.

The small concentrations of TB drugs in breast milk do not have a toxic effect on nursing newborns, and breast-feeding should not be discouraged for women undergoing anti-TB therapy. Similarly, drugs in breast milk should not be considered effective treatment for disease or infection in a nursing infant.

FOLLOW-UP AFTER AN EXPOSURE:

Remember: **YOU** are responsible to keep track of your own follow-up schedule.

What follow-up should be done after your exposure?

HIV

- Perform HIV-antibody testing for at least 6 months postexposure (e.g., at baseline, 6 weeks, 3 months and 6 months.)
- Perform HIVB antibody testing if illness compatible with an acute retroviral syndrome occurs.
- Evaluate exposed persons taking post exposure meds within 72 hours after exposure and monitor for drug toxicity for at least 2 weeks.

HBV

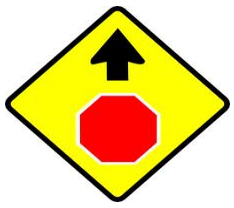
- Perform follow-up anti-HBs testing in persons who receive hepatitis B vaccine
  - Test for anti-HBs 1-2 months after last dose of vaccine.
  - Anti-HBs response to vaccine cannot be ascertained if HBIG (Hepatitis B Immune globulin) was received in the previous 3-4 months.
  - Check again at 6 months if no antibody detected.

HCV

- Perform baseline and follow-up testing for anti-HCV 4-6 months after exposures.
- Perform HCV RNA at 4-6 weeks if earlier diagnosis of HCV infection desired.
- Confirm repeatedly reactive anti-HCV enzyme immunoassays (EIAs) with supplemental tests.

TB

Within 10 days perform baseline PPD and at 10-12 weeks perform follow-up testing for TB exposure. If indicated by development of symptoms of active disease or a PPD skin test conversion, follow with an Infectious disease physician. Understand that once treatment begins, a patient ordinarily quickly becomes noninfectious; that is, they cannot spread the disease to others.



Treatment Precautions:

HIV

During the follow-up period, especially the first 6-12 weeks when most infected persons are expected to show signs of infection, you should follow recommendations for preventing transmission of HIV. These include not donating blood (for one year), semen, or organs and not having sexual intercourse. If you choose to have sexual intercourse, using a condom consistently and correctly may reduce the risk of HIV transmission. You must also continue to use a condom at least 30 days after you discontinue the drug regimen. In addition, women should consider not breast-feeding infants during the follow-up period to prevent exposing their infants to HIV in breast milk.

HBV If you are exposed to HBV and receive post-exposure treatment, it isn't likely that you will become infected and pass the infection on to others.
No precautions are recommended.

HCV
No precautions are recommended.

TB
During follow-up you must never deviate from your medication schedule. After you have successfully started treatment for tuberculosis, within a short time you are no longer able to pass it on to others. Re-infection in a normal healthy person is rare. However, in rare circumstances it may be possible to become re-infected, particularly if the immune system becomes compromised for any reason.
If a person has resistant TB, he/she can remain infectious to others for a longer period of time.

APPENDIX:

HIV:

CDC National AIDS Hotline (1-800-342-2437)
Information specialists here can answer questions or provide information on HIV infection, AIDS and the resources available in your area.
www.AIDSmeds.com
www.TREATHIV.com
The HIV/AIDS Treatment Information Service (1-800-448-0440)can also be contacted for information on the clinical treatment of HIV/AIDS.
For free copies of printed material on HIV infection and AIDS, please call or write:

CDC National Prevention Information Network
P.O. Box 6003, Rockville, MD 20849-6003,
1-800-458-5231
Internet address www.cdcnpin.org

Additional information about occupational exposures to Bloodborne pathogens is available on CDC's Hospital Infections Program's website at www.cdc.gov/hai/ or on CDC's National Institute of Occupational Safety and Health's website at www.cdc.gov/niosh or call 1-800-35 NIOSH (1-800-356-4674).

Hepatitis:

For additional information about Hepatitis B and hepatitis C you can call the *hepatitis information* line at **1-888-4-HEPCDC (1-888-443-7232)**

Or visit **CDC's** hepatitis website at http://www.cdc.gov/hepatitis/

The Vaccine Adverse Event Reporting System 1-800-822-7967