



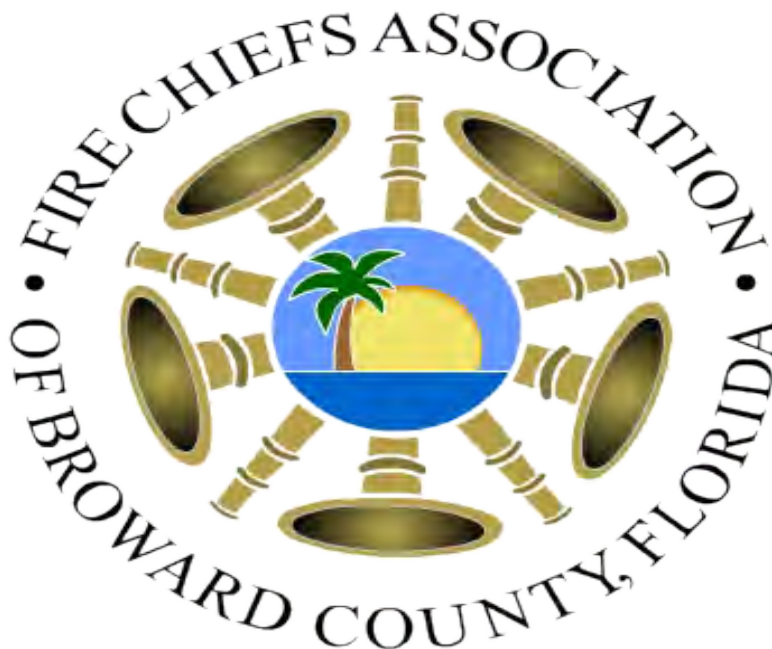
Broward County, Florida  
**REGIONAL EMS**



**Infectious Disease/Pandemic Response Guidelines  
For  
Pre-hospital Emergency Providers**

**Supported by  
Broward EMS Regional Council  
Fire Chiefs' Association of Broward County**

**September, 2009**



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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

## **PURPOSE & GOALS**

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

The “Infectious Disease/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 must be applied.

The following points are recognized goals of the infectious disease/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.

## **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.

Human cases of the H1N1 virus infection have been confirmed in residents of US, Canada and Mexico. Illness signs and symptoms have consisted of influenza-like illness - fever of 100 degrees F or higher and respiratory illness (cough, sore throat and runny nose). Gastrointestinal symptoms may or may not be present. These cases had illness onset during late March to mid-April 2009. However, cases of severe respiratory disease, including fatal outcomes, have been reported in Mexico. The potential for exacerbation of underlying chronic medical conditions in patients with influenza should be considered. Investigations of these cases suggest that on-going human-to-human transmission of H1N1 virus is occurring.

We have resisted the temptation to specifically address the possibility of pandemic "flu" 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. Subverting these guidelines could potentially threaten the entire medical system.

## **DEFINITIONS**

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

**ALS:** Advanced Life Support

**Alternate Medical Treatment Sites (AMTS):** AMTS maybe set up to care for patients with pandemic illness. AMTS could be established in schools, churches, public buildings, or free standing shelters. The AMTS could be set up through a hospital, Public Health or volunteer agencies to care for the sick.

**AGMP:** Aerosol Generating Medical Procedure

**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.

**BLS:** Basic Life Support

**CAD:** Computer Aided Communication Center

**DOH:** Florida Department of Health.

**EOC:** Emergency Operations Center

**EMS:** Emergency Medical Service

**Epidemic:** A localized outbreak of an infectious disease

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

**Haz-Mat:** Hazardous Materials

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

**ILI:** Influenza Like Illness

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

**MCI:** Mass/Multiple Casualty Incident.

**NIOS:** National Institute for Occupational Safety

**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.

**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 Phases:** Phases 1–3 correlate with preparedness, including capacity development and response planning activities, while Phases 4–6 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
- WHO-5: Evidence of significant human to human transmission.
- WHO-6: Efficient and sustained human to human transmission

**PEP:** Post Exposure Prophylaxis medication.

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

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

**PSA:** Public Service Announcements.

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

**S & S:** Signs and Symptoms.

**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.

**Swine Flu** 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).

**WHO:** World Health Organization.

### **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

## All-Hazards Infectious Disease/Pandemic Guidelines

### 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 rested.** 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 “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 Protocol 36**, Dispatch card layout and routine questions can be found in Appendix # 2)

## **Guidelines for EMS Operation**

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 “**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
- For possible H1N1 best choice is N95 mask, surgical masks are acceptable
- Splash-resistant gown or suit
- PAPRs / SCBA
- 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); endotracheal**

**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 ventilators
  - Nebulizers
  - Non-rebreather oxygen masks
  - Suction units
- Patients must be able to maintain their own airway:
  - Oropharyngeal and nasopharyngeal 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:**

- **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 Medical Treatment Site (AMTS) 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:**

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.

For the most current information about pandemic influenza, including up-to-date guidance documents and related materials, visit [www.pandemicflu.gov](http://www.pandemicflu.gov).

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 >60% 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 ( $>100^{\circ}$  F [ $37.8^{\circ}$ C]), or signs of a fever without the use of fever-reducing medications; or the most current CDC recommendations.

**Appendix 1.0**  
**Infectious Disease “Pocket Cards”**

**INFECTIOUS DISEASE  
PREVENTION  
HANDWASHING**

*Hand washing is the most effective way to prevent transmission of Infectious Disease.*

**WASH HANDS**

- After patient contact
- Before eating, drinking, smoking or handling food
- Before & after using the bathroom
- After cleaning or checking equipment

**PPE**

*Gloves and Eye Protection should be worn for every patient.*

**FULL PPE** for possible Infectious contacts

**Donning Sequence**

- Gloves > Gown or Suit > Mask > Eye Protection
- *Mask Patient*

**Removal Sequence**

- Gown or Suit > Gloves > Hand cleaner
- Eye Protection > Mask > Hand cleaner
- Handle contaminated waste

**INFECTIOUS DISEASE  
FEBRILE ILLNESS**

- Communication Centers will notify units of - Infectious symptoms or locations

**FULL PPE**

- Gloves, Eye Protection, HEPA Masks & Gowns or Suit
- *Mask patient*
- Limit patient contacts

**After patient contact**

- Remove PPE – approved sequence
- Dispose of PPE as contaminated waste
- On scene decon - Eye Protection & equipment w/ germicidal cleaner
- Hospital decon - Eye Protection, equipment and apparatus
- Decon affected equipment & contacts (kits, BP/steth, radios, clipboards, etc.)
- Wash hands often

## Appendix 2.0

### 36 PANDEMIC FLU (OFFICIALLY ANNOUNCED)

KEY QUESTIONS		POST-DISPATCH INSTRUCTIONS	
1. Is s/he <b>completely alert</b> (responding appropriately)?		a. (If <b>regular dispatch</b> ) I'm sending the <b>paramedics</b> (ambulance) to help you now. <b>Stay on the line</b> and I'll tell you <b>exactly</b> what to do next.	
2. (Difficult breathing) Describe to me what her/his breathing is like.		b. (If <b>reduced/limited dispatch</b> ) I'm arranging care for you now. An ambulance (or Care Van) will come to check you <b>when they are available</b> . This might take (several hours).	
a. (INEFFECTIVE) Did s/he have any flu symptoms prior to this?		c. (If <b>quarantine and no dispatch</b> ) Because of the extent of the flu epidemic, an ambulance cannot be sent to you. I will connect you to a <b>flu care specialist</b> who will advise you on what to do.	
Yes _____	36-D-1	d. (Patient medication requested and Alert) Remind her/him to do what her/his doctor has instructed for these situations.	
No _____	6	e. (≥ 1 + DELTA) If there is a <b>defibrillator</b> (AED) available, send someone to get it <b>now</b> in case we need it later.	
3. Is s/he <b>changing color</b> ?			
a. (Yes) Describe the color change.			
4. Does s/he have a <b>fever</b> (hot to touch in room temperature)?			
5. Is s/he <b>coughing</b> ?	* per Rule 2		
6. Does s/he have a <b>sore throat</b> ?			
7. Does s/he have <b>body aches</b> ?			
8. Does s/he have a <b>runny or stuffy nose</b> ?			
9. Does s/he have <b>diarrhea or vomiting</b> ?			
10. Is s/he having <b>chills or sweats</b> ?			
11. Does s/he have a <b>headache</b> ?			
a. (Yes & no other flu symptoms) Was there a sudden onset of severe pain?			
Yes _____	18	DLS * Link to X-1 unless:	
No flu symptoms in KQ 4-11 _____	CC	INEFFECTIVE BREATHING and Not alert	ABC-1

LEVELS	#	DETERMINANT DESCRIPTORS	CODES	LEVEL 1 (A)	LEVEL 2 (B)	LEVEL 3 (C)
<b>D</b>	1	INEFFECTIVE BREATHING with flu symptoms	36-D-1			
	2	Not alert with flu symptoms	36-D-2			
	3	DIFFICULTY SPEAKING BETWEEN BREATHS with flu symptoms	36-D-3			
	4	CHANGING COLOR with flu symptoms	36-D-4			
<b>C</b>	1	Chest pain ≥ 35 with single flu symptom	36-C-1			
	2	Abnormal breathing with single flu symptom	36-C-2			
<b>A</b>	1	Chest pain ≥ 35 with multiple flu symptoms	36-A-1			
	2	Chest pain < 35 with single flu symptom	36-A-2			
	3	Abnormal breathing with multiple flu symptoms	36-A-3			
<b>Ω</b>	1	Flu symptoms <b>only</b> (cough, fever, chills or sweats, sore throat, diarrhea, body aches, headache, etc.)	36-Ω-1			
	2	Chest pain < 35 with multiple flu symptoms	36-Ω-2			

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Pandemic Flu Level Suffixes	CHANGING COLOR	
<p>Locally announced Pandemic Flu level designations may affect your agency's response assignment. These suffixes allow for locally designated, potentially different levels of pandemic patient triage:</p> <p><b>A</b> = Level 1 (low)  <b>B</b> = Level 2 (moderate)  <b>C</b> = Level 3 (high)</p>	<p>Changing colors of <b>clinical significance</b> include:</p> <ul style="list-style-type: none"> <li>Ashen/Gray</li> <li>Blue/Cyanotic/Purple</li> <li>Mottled</li> </ul> <p>(Pale, pink, and red are not colors of clinical significance in the dispatch environment and will not, alone, change the dispatch priority. Callers failing to initially identify a listed color should not be coached by asking unlisted clarifiers such as "Well, is s/he gray?")</p>	<p>asked again. More than one flu symptom creates a higher likelihood that the Chief Complaint is actually the flu.</p> <p>3. If <b>initial information</b> identifies the Chief Complaint as <b>Breathing Problems</b> (6), <b>Chest Pain</b> (10), <b>Headache</b> (18), or <b>Sick Person</b> (26), and other flu symptoms are <b>not identified</b>, return to the <b>original Chief Complaint</b> and <b>complete the call</b>.</p> <p>4. If the patient had a <b>fever</b> but took aspirin, acetaminophen (Tylenol), or ibuprofen (Motrin), <b>and the fever is now gone</b>, answer the fever Key Question as "yes".</p>
<p><b>INEFFECTIVE BREATHING</b></p> <p>The following, when <b>volunteered</b> at any point during Case Entry (code as <b>ECHO</b> on 2, 6, 9, 11, 15, 31):</p> <ul style="list-style-type: none"> <li>"Barely breathing"</li> <li>"Can't breathe at all"</li> <li>"Fighting for air"</li> <li>"Gasping for air" (<b>AGONAL BREATHING</b>)</li> <li>"Just a little" (<b>AGONAL BREATHING</b>)</li> <li>"Making funny noises" (<b>AGONAL BREATHING</b>)</li> <li>"Not breathing"</li> <li>"Turning blue or purple"</li> </ul>	<p><b>Epidemic</b></p> <p>A sudden outbreak of a disease or an <b>unusually large number of disease cases in a single community or relatively small area</b>. Disease may spread from person to person and/or through the exposure of many persons to a single source, such as a water supply.</p> <p><b>Pandemic</b></p> <p>An epidemic that becomes <b>widespread, affecting an entire region, continent, or the world</b>.</p> <p><b>Rules</b></p> <p>1. Once a pandemic is officially announced, use <b>Protocol 36</b> for the medical Chief Complaints of <b>breathing problems, chest pain, headache, and sickness</b>. Do not go to Protocols 6, 10, 18, or 26 unless Protocol 36 directs you there.</p> <p>2. Once <b>two flu symptoms</b> in Key Questions 4-11 have been identified, choose the appropriate <b>Determinant Code</b>, skipping the rest of the questions. If <b>positive flu symptoms were mentioned in Case Entry</b>, these Key Questions <b>do not have to be</b></p>	<p><b>Axioms</b></p> <p>1. It is predicted that a pandemic will cause an <b>increase</b> in the number of <b>severe breathing problems</b> reported (more 6-D-1 cases) <b>unless Protocol 36 triage is implemented</b>.</p> <p>2. When contracted from a <b>bird</b>, avian influenza A (H5N1) has a <b>60% mortality rate</b>.</p> <p>3. <b>Human-to-human</b> transmission of the avian influenza virus is currently <b>very rare</b>.</p> <p><b>Flu Symptoms</b> (may be updated as more is known about specific symptoms at the time of an outbreak)</p> <p>Common symptoms of the current Pandemic Flu illness based on the latest information from government health agencies:</p> <ul style="list-style-type: none"> <li>Body aches</li> <li>Chest pain</li> <li>Chills or sweats</li> <li>Cough</li> <li>Diarrhea</li> <li>Difficulty breathing</li> <li>Fever (&gt;100° F/38° C)</li> <li>Headache</li> <li>Runny/stuffy nose</li> <li>Sore throat</li> <li>Vomiting</li> </ul>

### 36 PANDEMIC FLU (OFFICIALLY ANNOUNCED)

## **Appendix 3.0**

### **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, TRP, etc. for callers who need instructions on how to deal with the ill, dying or deceased. If those services are not available the following procedures will be followed by the communications staff.

## **Appendix 4.0**

### **Pandemic Guidelines 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.

## **Appendix 4.0**

### **Pandemic Guidelines 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 influenza infection control recommendations, including respiratory protection measures, in consultation with the Centers for Disease Control and Prevention, and other state and federal organizations.

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

Plan and execute training on plan. Update as needed.

## **Appendix 4.0**

### **Pandemic Guidelines EMS Activation Levels:**

#### **LEVEL 2 - REVIEW AND UPDATE PANDEMIC PLAN**

Review plan. Update as needed for current situation. Institute training on updates.

Response plan (using the National Incident Management System) be carefully 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 and recommendations for:

- PPE for healthcare workers, including respiratory protection;
- situations in which personal protective equipment is in short supply or unavailable as a result of patient demand and census; and
- "fitness-to-work" guidelines for healthcare workers. These guidelines will be based on the clinical symptoms of influenza.

Review and order additional PPE and other identified supplies to meet the expected need should the event proceed to a Level 3 or Level 4.

## Appendix 4.0

### Pandemic Guidelines EMS Activation Levels:

#### 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 Difficulty” and “Sick Unknown” 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 “**PPE advised.**”

##### **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 Plan Flu 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.

## **Appendix 4.0**

### **Pandemic Guidelines EMS Activation Levels:**

#### **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, “**PPE advised.**”

Review criteria to be implemented at Level 3.

Monitor call volume and work load. Consider implementing an alternative staffing plan for dispatchers and call receivers, 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.

##### **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.

**Appendix 4.0**

**Pandemic Guidelines EMS Activation Levels:**

**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 considered.

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 medical treatment sites (AMTS).

Consider securing facility.

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 flu 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/EMT, or EMT/Paramedic.
3. Possible pandemic flu patients transported to designated hospital or AMTS

Consider securing facility.

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.

#### **Appendix 4.0**

#### **Pandemic Guidelines EMS Activation Levels:**

#### **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/EMT, or EMT/Paramedic.
- Possible pandemic flu patients transported to designated hospital or AMTS.

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 flu patients according to Pandemic flu 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 flu Standing Orders.**