pennsylvania
DEPARTMENT OF HEALTH
BUREAU OF EMERGENCY MEDICAL SERVICES

RC Memo 2009 – 007

DATE: May 1, 2009

SUBJECT: **H1N1 Influenza A Statewide BLS Protocol**

TO: Regional EMS Council Directors

THRU: Joseph Schmider, Director
Bureau of Emergency Medical Services

FROM: Douglas F. Kupas, MD
Commonwealth EMS Medical Director
Bureau of Emergency Medical Services

The Bureau of EMS has added a statewide BLS protocol #931 dealing with H1N1 Influenza infections. This protocol is effective immediately and is to be disseminated to providers in your region.

The Bureau of EMS is adding this protocol to the EMS Protocol Link on the Bureau's webpage www.health.state.pa.us/ems . A copy of the protocol is attached.

SUSPECTED H1N1 INFLUENZA A
STATEWIDE BLS PROTOCOL

Criteria:

A. This protocol applies to all patients encountered by EMS during an epidemic/ pandemic of influenza. [Note: Infectious diseases are dynamic and EMS personnel should frequently check the EMS Protocols Link on the Pennsylvania Department of Health Bureau of EMS's webpage at http://www.health.state.pa.us/ems for the most current version of this protocol]

B. The Centers for Disease Control and Prevention (CDC) has declared an epidemic of H1N1 influenza A, or other epidemic viral illness, like SARS or avian influenza.

Exclusion Criteria:

A. None

System Requirements:

A. All levels of responders should have fit-tested disposable N95 respirator, eye protection, and disposable non-sterile gloves and gown.

B. EMS services in geographic areas with confirmed cases of H1N1 influenza should screen their EMS personnel for fever or symptoms of acute respiratory illness before each shift, and EMS personnel should immediately report symptoms that develop during or after a shift. EMS services should work with their occupational health programs, EMS service medical director, and EMS regional councils to make sure that long-term PPE needs and prophylactic antiviral needs (as directed by the PaDOH) are addressed.

C. Dispatch/ PSAP Issues:

1. PSAP call takers should screen callers to determine if the patient, or someone at the incident location, has symptoms of "acute febrile respiratory illness" (AFRI - which include nasal congestion/ runny nose, sore throat, cough, fever, or other flu-like symptoms), and symptoms of "acute febrile respiratory illness" should be communicated to responders prior to arrival at the scene. Ask patient to meet EMS at the door, if the patient condition permits.
2. EMS services should collaborate with their PSAP, regional EMS council, and medical director/ PSAP medical director/ regional EMS medical director to review resources dispatched to calls. For some categories of calls, it may be reasonable to send only an ambulance (BLS when appropriate) to avoid exposure to first responders (including QRS, firefighters, law enforcement). If a community becomes inundated with calls for possible AFRI, it may be appropriate to send only a QRS/first responder or to direct the caller to other community resources established for individuals with symptoms of AFRI.

Procedure:

A. All Patients:

1. If symptoms of "acute febrile respiratory illness" are suspected based upon dispatch information, consider limiting the number of initial personnel that approach the patient or enter a residence.

B. Patients with medical condition that requires immediate care and EMS personnel suspect possible acute febrile respiratory illness (AFRI) but cannot complete assessment for suspected case of H1N1 influenza (for example a cardiac arrest with preceding respiratory illness):

1. EMS personnel should don PPE for suspected case of H1N1 influenza before proceeding with patient care/ resuscitation. [1]

C. If there <u>HAS NOT</u> been H1N1 influenza reported in the geographic area:

1. Assess patient while staying at least 6 feet away from patient and bystanders with symptoms and exercise appropriate routine respiratory droplet precautions (cough etiquette, hand hygiene, and spatial separation) while assessing all patients for suspected cases of H1N1 influenza.
2. Assess all patients for "acute febrile respiratory illness" (AFRI = fever (≥100°F or37.8°C if measured) plus one or more of the following: nasal congestion/ runny nose, sore throat, or cough).

a. If no AFRI, proceed to protocol #201 and other appropriate protocols.

3. If AFRI, then assess all patients for travel to a geographic area with confirmed cases of H1N1 influenza within the last 7 days or close contact with someone with travel to these areas.

   a. If travel exposure, EMS personnel should don appropriate PPE for suspected case of H1N1 influenza before placing a surgical mask on the patient (if tolerated) and proceeding to protocol #201 and other appropriate protocols**.** [1,2,3]

   b. If no travel exposure, place a standard surgical mask on the patient (if tolerated) and use appropriate PPE for AFRI. [1,2,3]

D. If the CDC HAS reported cases of confirmed H1N1 influenza in the geographic area:

1. Address scene safety:

   a. If EMS personnel have been advised by PSAP that there is potential "acute febrile respiratory illness" (AFRI) on scene, EMS personnel should don PPE for suspected case of H1N1 influenza prior to entering scene. [1]

   b. If PSAP has not identified individuals with symptoms of AFRI on scene, EMS personnel should stay more than 6 feet away from patient and bystanders with symptoms and exercise appropriate routine respiratory droplet precautions (cough etiquette, hand hygiene, and spatial separation) while assessing all patients for suspected cases of H1N1 influenza.

2. Assess all patients for AFRI (fever (≥100°F or37.8°C if measured) plus one or more of the following: nasal congestion/ runny nose, sore throat, or cough).

   a. If AFRI, don appropriate PPE for suspected case of H1N1 influenza before proceeding with care. [1,2,3]

   b. If no AFRI, proceed to protocol #201 and other appropriate protocols.

E. All patients:

1. Proceed to protocol #201 and other appropriate protocols

   a. Assess pulse oximetry, if available. See protocol #226.

   b. Apply oxygen, if appropriate. See protocol #202. [2]

2. If patient has symptoms of AFRI or is a case of suspected H1N1 influenza:

   a. Contact the receiving facility prior to arrival and advise of "acute respiratory symptoms" or "case of suspected H1N1 influenza".

3. Contact Medical Command, if indicated/ required.

   a. For isolated AFRI or suspected case of H1N1 influenza in otherwise stable patients, regional protocol may require contact with medical command prior to transport for possible integration or care with local pandemic plan.

4. Before returning to service, clean/ decontaminate the vehicle following "Interim Guidance for Cleaning Emergency Medical Service Transport Vehicles during an Influenza Pandemic" available at http://www.pandemicflu.gov/plan/healthcare/cleaning_ems.html. [4]

Possible MC Orders:

A. If traditional medical systems become overwhelmed by the numbers of suspected H1N1 influenza patients, the Department of Health may establish alternatives to traditional care that may be ordered by medical command or by regional EMS protocol. These alternatives may include assessment without transport, delivery of antivirals to the patient's residence, referral or diversion to somewhere other than an emergency department, etc.

Notes:

1. Personal Protective Equipment (PPE)

a. **For case of suspected H1N1 influenza** – don fit-tested disposable N95 respirator and eye protection (e.g., goggles; eye shield), disposable non-sterile gloves, and gown, when coming into close contact with the patient.
   i. EMS personnel should wear this PPE when in close contact with patient (within 6 feet of patient), when in the patient compartment of the ambulance with the patient, and when in the front passenger compartment of the ambulance (unless the patient compartment and passenger compartments of the ambulance are physically separate).
   ii. All EMS personnel engaged in aerosol generating activities (e.g. endotracheal intubation, nebulizer treatments, BVM ventilation, or CPR) should wear PPE for suspected H1N1 influenza unless EMS personnel are able to rule out AFRI or travel to the endemic area in the patient being treated.
   iii. EMS personnel who cannot wear a fit-tested N95 respirator (e.g. due to beard or unavailability of supplies) should wear a standard surgical mask and avoid engaging in aerosol generating activities if possible.

b. For patient who is **NOT** a case of suspected H1N1 influenza but who has AFRI:
   i. Place a standard surgical mask on the patient, if tolerated. If not tolerated, EMS personnel may wear a standard surgical mask.
   ii. Use good respiratory hygiene – use non-sterile gloves for contact with patient, patient secretions, or surfaces that may have been contaminated. Follow hand hygiene, including hand washing or cleansing with alcohol-based hand disinfectant after contact.

2. Use of standard surgical masks on patients:
   a. Patients with AFRI (whether suspected case of H1N1 influenza or not) should wear a standard surgical mask, if tolerated, during patient assessment, care, transport, and transportation in public areas of receiving facility.
   b. Small facemasks are available that can be worn by children, but it may be problematic for children to wear them correctly and consistently. Moreover, no facemasks (or respirators) have been cleared by the FDA specifically for use by children.
   c. Oxygen can be applied by nasal cannula under a standard surgical mask, if tolerated. Oxygen applied by NRB mask can reduce spread of droplets by cough, and this can be further reduced by covering the NRB with a standard surgical mask if tolerated.
3. Encourage good patient compartment vehicle airflow/ ventilation to reduce the concentration of aerosol accumulation when possible.
4. Cleaning the EMS vehicle after transporting a suspected or confirmed case of H1N1 influenza:
   a. The following are general guidelines for cleaning or maintaining EMS vehicles and equipment. This guidance may be modified or additional procedures may be recommended by the CDC as new information becomes available.
   b. EMS personnel should wear appropriate PPE when cleaning vehicle and equipment.
   c. 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 the virus. Influenza viruses are susceptible to inactivation by a number of chemical disinfectants readily available from consumer and commercial sources.
   d. After the patient has been removed and prior to cleaning, the air within the vehicle may be exhausted by opening the doors and windows of the vehicle while the ventilation system is running. This should be done outdoors and away from pedestrian traffic. Routine cleaning methods should be employed throughout the vehicle and on non-disposable equipment.

Performance Parameters:

A. Review cases of AFRI where patient was not transported.

Additional Resources:

www.health.state.pa.us Pennsylvania Department of Health

www.cdc.gov Centers for Disease Control

www.pandemicflu.gov U.S. Health and Human Services pandemic flu information