



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supplements/Updates: 92-02, 03-02, 03-11

No. 13-05

Date: 04/03/2013

**Re: Respiratory Disease
Precautions**

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Introduction:

This policy was updated in consultation with NYS Department of Health (DOH) Bureau of Communicable Disease Control, NYS DOH Occupational Health and Safety, and NYS Department of Labor Public Employee Safety and Health. It is the intention of this policy statement to provide information and recommendations for the transport of patients with potentially infectious respiratory illnesses, such as influenza and tuberculosis (TB). This policy will also provide updated guidelines for **“respiratory etiquette”** and the use of Personal Protection Equipment (PPE) as well as recommendations for preventive health care measures for EMS providers.

The Bureau of Emergency Medical Services (BEMS) strongly recommends that all EMS agencies review this guidance document, along with other State and county public health recommendations, to prepare your EMS agency response to a patient with a potentially infectious respiratory illness.

EMS providers should be aware of the signs and symptoms of infectious respiratory diseases and the procedures necessary for protecting themselves. Not all respiratory infections are transmitted in the same way. Transmission can occur from direct or indirect contact, large droplets, or small droplet nuclei. The mode of transmission will depend on the etiological agent. When encountering patients with symptoms of potentially infectious respiratory illness, the CDC recommends the use of surgical masks. Certain procedures can also impact transmission of infectious agents by producing aerosols. These are deemed “high risk respiratory procedures” and include intubation, extubation, deep tracheal suctioning, nebulized respiratory treatments and bronchoscopy. When performing these high risk procedures, the CDC recommends the use of appropriate and/or adequate “NIOSH APPROVED / RATED” respirators. The use of NIOSH approved respiratory protection may be required under pandemic influenza or other emerging disease alerts issued by CDC.

More often in the field of emergency medicine, the etiologic agents of infections are unknown. Given this, it is paramount that good infection control practices be followed for contact with all patients.

Respiratory Etiquette Strategy

- Implement the use of surgical masks by healthcare personnel, during the evaluation of patients with respiratory symptoms.
- Provide surgical masks to all patients with symptoms of a respiratory illness. Provide instructions on the proper use and disposal of masks.
- For patients who cannot wear a surgical mask in addition to any medical treatment being provided, provide tissues and instructions on when to use them (i.e., when coughing, sneezing, or controlling nasal secretions), how and where to dispose of them, and the importance of hand hygiene after handling this material.

Recommendations:

1. Personal Protection

When assessing a patient with symptoms of a febrile respiratory illness, the use of a surgical mask is recommended. When performing high risk aerosolizing procedures the use of a NIOSH approved/rated respirator is recommended. When directed by a BEMS Advisory, the REMAC or the EMS agency medical director, use the highest level of respiratory protection available. The employer is responsible for ensuring the proper PPE is utilized and when respirators are used, conforming with requirements (i.e. medical screening, fit testing, training, user seal checks, respiratory protection plan, etc.) as prescribed by the OSHA Respiratory Protection standard. In all cases, adhere to Standard Precautions - the use of gown, gloves and eye protection if contact with bodily secretions or a contaminated environment is anticipated. Additionally, EMS providers must be familiar with PPE application (donning) and removal (doffing) procedures. The routine use of Standard Precautions will allow EMS providers to protect themselves and their patients against known infectious diseases or other new emerging diseases.

- Place a surgical mask on the patient if not medically contraindicated.
- Prior to transporting a patient with an infectious respiratory symptom, the door between the driver and the patient compartment should be closed. If the vehicle does not have a barrier between the cab and the patient compartment, the driver and front seat passenger should, wear a surgical mask, if the patient cannot wear one.
- Practice good hand hygiene. Hands must be properly washed before donning and after removal of gloves with warm soapy water or disinfected with a waterless hand sanitizer if a sink is not immediately available. **Do not wait until you return to the ambulance station to practice hand hygiene.**
- Assure adequate cleaning of the equipment and vehicles between transports. This cleaning should minimally include:
 - a. Use of Environmental Protection Agency (EPA) approved disinfectant;
 - b. Disinfecting any reusable equipment used on the patient as per the manufacturer's instructions;
 - c. Frequently touched surfaces of the vehicle;
 - d. Visibly soiled surfaces.

2. Medical Procedures

Medical procedures, such as nebulized respiratory treatments, that may re-aerosolize infectious material should only be done if medically necessary. It is recommended that mechanical ventilators, including BVM devices and suction equipment, should be fitted with a HEPA filter, if available, to prevent re-aerosolization. EMS agencies should contact equipment manufacturers for recommendations on a HEPA filter. When performing these high risk procedures, the CDC recommends the use of appropriate and/or adequate "NIOSH APPROVED/RATED" respirators.

3. Tuberculosis

Although the overall risk is low, there has been documented transmission of *M. tuberculosis* in EMS occupational settings. EMS personnel should be included in comprehensive training, education, and testing programs for TB infection, and follow-up testing as indicated by the risk classification of the setting. Drivers, HCWs, and other staff transporting patients with suspected or confirmed TB should wear an N95 respirator, and the patient should wear a surgical mask. In addition, ambulances should allow for the maximum amount of outdoor air to be circulated in the vehicle.

EMS Provider Health Precautions

1. BEMS strongly recommends providing the following to EMS agencies and providers:
 - a. Enforce the use of surgical masks and/or adequate "NIOSH APPROVED/RATED" respirators when assessing or performing aerosolizing procedures. When respirators are used, the employer shall conform with requirements (i.e. medical screening, fit testing, training, seal checks, respiratory protection plan, etc.) as prescribed by the OSHA Respiratory Protection standard.
 - b. Frequent and on-going education including, but not limited to infection control measures, PPE as well as proper personal/hand hygiene.
 - c. Annual flu vaccinations and other preventive health measures.
2. EMS agencies should monitor their crews for any type of infectious illness. EMS management should monitor any provider that presents with signs and symptoms of a febrile respiratory illness. Agencies should consider the following (in order of preference):
 - Release staff from duty until they have sought medical attention and have sufficiently recovered.
 - Assigning staff to non-patient care related duties for the duration of their illness.
 - Require EMS providers to don surgical masks to protect their patients while providing care.
 - The EMS agency medical director and the County Public Health Office should be advised of any EMS healthcare provider who is hospitalized with pneumonia.

Conclusion:

Adherence to the above respiratory protection guidance will allow the EMS community to protect itself when assessing and treating patients with a potentially infectious respiratory disease. The routine use of standard precautions will protect against other types of infectious diseases.

For Additional Resources:

Please review the information provided at the following web sites:

- www.health.state.ny.us
- <http://www.nyc.gov/html/doh/html/home/home.shtm>
- <http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm>
- <http://www.cdc.gov/mmwr/pdf/rr/rr5417.pdf>
- http://www.labor.state.ny.us/workerprotection/safetyhealth/dosh_pesh.shtm

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