This protocol is to be used for those patients suspected of exposure to biological agents via any route of exposure (e.g. inhalation, absorption, etc.).

Scene safety should be of primary concern, with attention to the need for personal protective equipment.

Additional assistance may be necessary (e.g. hazardous materials team, police, fire department, etc.).

Since many biological agents are spread through an airborne route, scene safety must include use of protective masks by all personnel, and must include containment of the unknown substance to prevent airborne spread.

Any victim who has a cough, respiratory symptoms, or a flu-like syndrome should be considered as potentially infectious to others by a respiratory route, until proven otherwise.

Both patient and healthcare workers should wear protective masks.

If the patient needs low-flow oxygen therapy, it may be given by nasal cannula under a protective mask. If the patient needs high-flow oxygen therapy, it may be given by non-rebreather mask which should not be covered by a protective mask; but the healthcare workers must wear protective masks.

Symptoms that would develop after a biological weapon (BW) attack would be delayed and nonspecific, making the initial diagnosis difficult.

A BW attack should be considered if any of the following are present:

- Large epidemic with unprecedented number of ill or dying.
- HIV(+) individuals may have first susceptibility (“canary in a coal mine”)
- High volumes of patients complaining primarily of respiratory symptoms that are severe and are associated with an unprecedented mortality rate.
• The cause of infection is unusual or impossible for the particular region (such as the Ebola virus which is rarely seen outside of Africa)

• Multiple, yet simultaneous outbreaks

• The epidemic is caused by a multi-drug-resistant pathogen, previously unknown

• Sick or dead animals of multiple types are encountered

• The delivery vehicle for the agent is identified

• Prior intelligence reports or claims by aggressors of a BW attack

**Signs and Symptoms**

*After a characteristic incubation period following aerosol exposure, most BW agents present as an initial influenza syndrome with:*

• Fever

• Chills

• Malaise

• Headache

• Myalgia

*Some BW agents rapidly develop into a pulmonary syndrome with:*

• Dyspnea

• Cyanosis

• Chest pain
• Radiological abnormalities
• Liver involvement indicated by rising liver enzymes, with or without jaundice
• Encephalitis may occur with some select viral agents, typified by photophobia, confusion, nuchal rigidity
• Maculopapular, vesicular pustular, or ulcerative skin lesions with or without bleeding abnormalities may occur with some agents
• Unexplained death or flaccid paralysis may indicate a biological toxin

A history should be obtained from the patient and bystanders, to include:
• Duration of symptoms
• Pertinent medical history
• Patient’s recent history of travel
• Infectious contacts
• Employment
• Activities over the preceding 3 to 5 days

If a biological agent exposure is suspected, call the HAZMAT team.

All patients who have been exposed to hazardous materials must be properly decontaminated prior to initiation of extensive medical treatment and transportation to the hospital.

THE USE OF AEROMEDICAL TRANSPORT IS CONTRAINDICATED FOR ANY POTENTIALLY CONTAMINATED PATIENT.

It is imperative that the emergency department is made aware early that a contaminated patient is being transported in order for proper preparations to be made to receive the patient.
Treatment Level 1

1. Medical Supportive Care Protocol.

   or

   Trauma Supportive Care Protocol.

ALS Level 2

2. Either, contact the Poison Information Center (1-800-222-1222)

   or

   contact the receiving emergency department for consultation regarding specific
   therapy.

Crew Medical Follow –Up:

All public safety personnel who come into close contact with hazardous materials should
receive an appropriate medical examination, post-incident, based on information from the
designated poison control center, receiving emergency room physician or EMS medical
Director.

This should be completed within the shift of the incident and prior to returning to normal
duty or returning home.

Personnel should be advised of possible latent symptoms at the time of their exams.