

# West Virginia Department of Health and Human Resources

## Information for Physicians on Bioterrorism

### How likely is a bioterrorist (BT) event in West Virginia?

Historically, the individual risk of disease due to bioterrorism has been very, very small; however, no one can predict future criminal behavior. The purpose of this information sheet is to quickly inform physicians about the clinical and public health issues surrounding BT.

### What should I be watching for?

It is thought that BT agents would most likely be disseminated covertly via aerosol. That is, severe human illness would be the first sign that a BT event has occurred. Here is a brief run-down of the most serious BT agents.

Agent	Clinical Clues	Epidemiological Clues
Anthrax	<ul style="list-style-type: none"> <li>Influenza-like prodrome with rapid progression to death within 1-3 days</li> <li>Abnormal chest X-ray, including widened mediastinum and/or pulmonary infiltrate or effusion</li> </ul>	<ul style="list-style-type: none"> <li>Cluster of respiratory disease in previously healthy individuals with rapid progression to death</li> <li>Incubation 2-60 days</li> </ul>
Pneumonic Plague	<ul style="list-style-type: none"> <li>Severe rapidly progressive pneumonia with death in 2-6 days</li> </ul>	<ul style="list-style-type: none"> <li>Cluster of pneumonia in previously healthy individuals with rapid progression to death</li> <li>Incubation 1-6 days, usually 2-4 days</li> </ul>
Tularemia	<ul style="list-style-type: none"> <li>Abrupt onset of fever, headache, chills, rigors</li> <li>Progression to pneumonia in some patients</li> </ul>	<ul style="list-style-type: none"> <li>Cluster of respiratory illness with progression to pneumonia in previously healthy individuals, especially off-season</li> <li>Incubation 1-14 days, usually 3-5 days</li> </ul>
Smallpox	<ul style="list-style-type: none"> <li>Prodrome of high fever, malaise, prostration</li> <li>Maculopapular rash with progression to round, tense pustules, deeply embedded in the dermis and most prominent on the face and extremities</li> </ul>	<ul style="list-style-type: none"> <li>Cluster of patients with characteristic rash illness</li> <li>Incubation 7-17 days, usually 12-14 days</li> </ul>
Botulinium toxin	<ul style="list-style-type: none"> <li>Acute, afebrile, descending flaccid paralysis that always begins in the bulbar muscles</li> <li>Death may result from airway and respiratory muscle paralysis</li> </ul>	<ul style="list-style-type: none"> <li>Cluster of patients with multiple cranial nerve abnormalities</li> <li>Incubation probably 1-5 days</li> </ul>

Agent	Clinical Clues	Epidemiological Clues
Viral hemorrhagic fever	<ul style="list-style-type: none"> <li>• Prodrome of fever, GI and respiratory symptoms, myalgia, headache and weakness</li> <li>• Disseminated intravascular coagulation, bleeding from multiple sites, multiorgan failure, shock and death follow within 1-2 weeks of symptom onset.</li> </ul>	<ul style="list-style-type: none"> <li>• Cluster of patients with hemorrhagic diathesis, shock, multi-organ failure and a very high mortality rate.</li> <li>• Incubation 2-21 days.</li> </ul>

### **What should I do if I suspect an unusual event?**

Notify your hospital infection control practitioner and local health department immediately. Do not wait for results of a diagnostic test if a cluster of unusual illness is identified. Rapid investigation will be necessary to establish whether an event occurred, which persons were exposed, and whether exposed persons would benefit from prophylactic immunizations or antibiotics. For some agents with the potential for secondary spread (e.g., smallpox, pneumonic plague), isolation or quarantine of ill persons will be necessary to stop transmission.

### **What should I do about diagnostic testing for BT agents?**

Notify your local health department or the Infectious Disease Epidemiology Program (IDEP) immediately if a case or cluster of suspicious disease is identified. The IDEP phone number is 304-558-5358 or 800-423-1271. For specific questions about diagnostic tests, call the Office of Laboratory Services at 304-558-3530.

### **What other agents are possible?**

Brucellosis, cholera, glanders, Q fever, and Venezuelan equine encephalitis are among the agents that might be weaponized. In each case, a BT attack might first present as a cluster of unusual illness affecting previously healthy individuals.

### **What do I tell my patients?**

The West Virginia Department of Health and Human Resources has prepared information for the public on bioterrorism. Contact your local health department for a copy of an information sheet on bioterrorism suitable for a general audience, or visit the website <http://www.wvdhhr.org/IDEP/a-z/a-z-bioterrorism.asp>.

Reassure your patients that we have no information to suggest a bioterrorist attack is likely, but smallpox vaccine and antibiotics are stockpiled in the unlikely event that an attack occurs.

Do not prescribe antibiotics for patients to prevent illness. There is no single antibiotic that will cover all BT agents, and the combination of side effects and antibiotic mis-use may do more harm than good. Smallpox vaccine is not available for general use because the supply is limited, the risk of smallpox is small, and the vaccine may have significant side effects.

Discourage patients from purchase of gas masks. A gas mask is only effective if worn at the time of aerosol release. Since aerosol release is unlikely to be announced in advance, a mask would have to be worn 24 hours a day and 7 days a week indefinitely to confer protection.

Patients who are unduly preoccupied or obsessing about this issue may benefit from counseling or participation in a support group.

### **Where can I get more information?**

Several websites offer excellent information for a professional audience:

Centers for Disease Control and Prevention: <http://www.bt.cdc.gov/>

University of Pittsburgh Medical Center: <http://www.upmc-biosecurity.org/>

Center for Infectious Diseases Research and Policy: <http://www.cidrap.umn.edu/>

United States Army Medical Research Institute of Infectious Diseases:  
<http://www.usamriid.army.mil/aboutpage.htm>