

**ANDREW J SPANO**  
County Executive

**Joshua Lipsman, M.D., M.P.H.**  
Commissioner, Department of Health

# ATTENTION

## Public Health Update

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The Westchester County Department of Health provides public health updates to members of the medical community on important issues affecting public health in Westchester. These updates are available on the Physician's Corner of our website at [www.westchestergov.com/health/physicianscor.htm](http://www.westchestergov.com/health/physicianscor.htm)

October 2, 2001

### **ALERT: Terrorist Attack at the World Trade Center in New York City: Medical and Public Health Issues of Concern**

The Westchester County Department of Health (WCDH):

- **Strongly Recommends Against Prescribing Prophylactic Antibiotics**
- **Encourages Healthcare Providers to Remain Alert for Unusual Disease Manifestations and Clusters**

TO: Medical Directors, Emergency Department Directors, Infection Control Practitioners, Infectious Disease Physicians, and Laboratory Directors:

We are sending this broadcast alert to update you on ongoing public health issues following the terrorist attack at the World Trade Center on Tuesday, September 11, 2001. Local health departments continue to work closely with New York City, State and Federal agencies, including the Centers for Disease Control and Prevention, in a coordinated response to the World Trade Center disaster.

**Please Share this Alert with the Following Key Staff at Your Hospital:**

- 1 – Hospital Administration**
- 2 – All Medical and Nursing Staff**
- 3 – Emergency Departments**
- 4 - Hospital Safety Director**
- 5 – Hospital Pharmacy and Laboratories**

#### **I. The WCDH Strongly Recommends Against Prescribing Prophylactic Antibiotics and Purchasing**

**Gas Masks:** The World Trade Center disaster has raised significant concerns among the public and the medical care community about the threat of bioterrorism. There is no evidence that biological agents have been released in New York City or the surrounding region based on active surveillance of emergency department visits at sentinel hospitals throughout NYC; laboratory tests on environmental samples taken from the affected area after the attack, as well as from other sites in the city, were all negative for biological agents that might be used in a terrorist attack. While there is no evidence that a

bioterrorist attack occurred in New York City, in conjunction with the tragedy of September 11th, it is important that we, as healthcare providers, be realistic about the threat of bioterrorism, in general, and focus our efforts on improving the ability to detect and respond to such an event in the future, should it ever occur.

The WCDH and New York City Department of Health (NYCDOH) continue to conduct surveillance for a bioterrorist event, and if an attack occurred would rapidly notify the medical community with recommendations on diagnosis, treatment, and preventive measures for the specific biological agent involved via our broadcast alert system and Website. The CDC has developed a large national stockpile of pharmaceuticals, including antibiotics that are effective against the most likely bacterial bioterrorist agents. This stockpile would be rapidly delivered in the event of a bioterrorist attack. As a precautionary measure, this stockpile was requested soon after the World Trade Center disaster, and arrived in New York City within hours of the City's request.

The likelihood of a large-scale bioterrorist event is currently thought to be low, given the high level of technical sophistication required to develop and disperse a biological weapon in the particle size necessary to infect massive numbers of persons. The current media reports of widespread prescribing of antibiotics for prophylaxis and the purchasing of gas masks for respiratory protection highlight the need for public education to put the risk of bioterrorism in perspective. As healthcare providers, we ask for your help in educating your patients and addressing their concerns.

Preventive measures, such as prophylactic antibiotics, are not without risk, and in the absence of any evidence of a release of a biological agent, currently have no benefit. Inappropriate use of antibiotics will lead to increased antibiotic resistance among microorganisms causing common bacterial infections (e.g., otitis media, pneumonia) and may result in serious adverse effects (e.g., *Clostridium difficile* colitis, allergic reactions, interactions with other medications). **Given the risks associated with inappropriate antibiotic use and because medications from the national stockpile would be rapidly available for prophylaxis of exposed persons following a confirmed bioterrorist event, the WCDH strongly recommends that physicians not prescribe antibiotics for their patients for current use or to stockpile for the future.**

We also do not recommend the use of gas masks, which are not designed to provide protection against biological agents. Gas masks would only protect against chemical agents if worn at the time of release. Since gas masks are only effective for several hours without changing cartridges, it is impractical for persons to be wearing these masks continuously. As they need to be fitted properly, improper use of gas masks can cause serious injury or even death, especially among persons with underlying heart or lung disease.

## **II. Anthrax and Smallpox Vaccines Not Commercially Available or Recommended**

There is currently no indication for the use of anthrax or smallpox vaccine. Since the World Trade Center disaster, we have received numerous questions regarding the availability of these two vaccines. Both vaccines are in short supply and not available to the general public or the medical community. Anthrax vaccination currently requires 6 shots over an 18-month period with periodic boosters. At this time, anthrax vaccine is in limited supply and only available for military personnel thought to be at higher risk for potential exposure to anthrax in combat settings.

Smallpox vaccinations were discontinued in the United States in 1972, and the last naturally occurring human case worldwide occurred in Somalia in 1977. Smallpox vaccine is no longer a licensed product in the United States and was removed from the commercial market in 1983 as a result of the successful eradication of smallpox. According to the CDC, the United States Public Health Service maintains an emergency stockpile of approximately 15 million doses. At the present time, smallpox vaccine is supplied only to certain laboratory research workers who are at risk of infection with smallpox-like viruses (orthopoxviruses) as a result of occupational exposure. The CDC is authorized to release the vaccine only to these workers under an Investigational New Drug (IND) permit from the Food and Drug Administration. The IND does not allow CDC to release smallpox vaccine to any other person for any other reason. Because of the risks of smallpox vaccine, especially in immunocompromised persons, and

because of the limited supply of vaccine available, there is no recommendation for initiating widespread vaccination for smallpox at this time, in the absence of any human cases. More detailed information on smallpox vaccine is available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5010a1.htm>.

**III. Ongoing Surveillance for Infectious Disease Outbreaks that May Represent Bioterrorism:** Since the terrorist attack on September 11th, the NYCDOH has continued to actively monitor for the possibility of a bioterrorist event in New York City. They have found NO evidence that biological agents have been released in the city; laboratory tests on environmental samples from the affected area after the attack were all negative for biological agents that might be used in a terrorist attack. Moreover, biological agents would assuredly not have survived the intense temperatures of the explosion and ensuing fire of the World Trade Center attack.

However, given the current increased concerns about terrorism in general, we recognize the need to remain alert to the occurrence of unusual disease clusters or manifestations that might represent a bioterrorist attack. Surveillance systems currently in place include:

A. Active Emergency Department (ED) Syndromic Surveillance in NYC: In sentinel hospital EDs, NYCDOH has established surveillance for illness syndromes that would likely occur if a biological pathogen were released covertly in New York City, including febrile illness associated with respiratory symptoms or rash, or a botulism-like syndrome. Epidemic Intelligence Service (EIS) officers from the CDC are currently on-site at these sentinel hospitals, working closely with ED staff to collect clinical data on all individuals presenting for evaluation. Data are analyzed daily at the NYCDOH and CDC for trends and patterns that could signal an increase in illness consistent with a possible bioterrorist event. Any clustering or increase in a particular disease syndrome is investigated immediately by the EIS officers on site. In the event that this surveillance system identifies a suspicious pattern of illness in the community, the NYCDOH will initiate an epidemiological field investigation to determine the etiology of the illness and rapidly notify the medical community by their broadcast alert system. Any suspicious pattern of illness in NYC would prompt the WCDH to also conduct an immediate investigation. **To date, NO unusual disease clusters or manifestations suggestive of bioterrorism have been identified by this system.**

B. Enhanced Healthcare Provider Reporting of Unusual Illnesses: Healthcare providers play a critical role in our ability to detect a covert bioterrorist event. We depend on local clinicians and laboratory staff to identify and report any unusual clusters of communicable diseases in a timely fashion. Vigilance for unusual clusters or manifestations of disease is critical to the early detection of any new infectious disease outbreak, whether the cause is natural or intentional. It was the prompt reporting of a cluster of unusual encephalitis cases by an infectious disease physician in northern Queens that led to the recognition of the 1999 West Nile encephalitis outbreak in the New York metropolitan area.

Please read the section entitled "Clinical Recognition and Management of Suspected Bioterrorism Events" at the end of this alert, which highlights clinical and epidemiological clues that could suggest a bioterrorist event, and underscores how all clinicians in Westchester can assist in detecting and reporting illness that might reflect a covert and/or intentional release of a biological agent.

C. Syndromic Surveillance of 911-EMS Calls in NYC: Many potential bioterrorist agents, including anthrax, plague, tularemia and smallpox, have an initial influenza-like illness prodrome. Detection of an increase in non-specific influenza-like illness could provide an early warning of a bioterrorist event. Since 1999, the NYCDOH has been actively monitoring 911-EMS calls on a daily basis to identify temporal or geographic increases in respiratory illnesses that might represent any infectious disease outbreak, including seasonal influenza, an unexpected introduction of a pandemic influenza strain, as well as a potential bioterrorist event. This system has been validated on an annual basis, as each year, the first surveillance indicator at the start of the influenza season has been an increase in 911-EMS calls compared to an established baseline. There has been no indication of an increase in influenza-like illness in New York City based on EMS-911 calls over the past few weeks.

#### **IV. Concerns about Public Health Issues Related to the Disaster Site**

**A. Acute Stress Disorders:** All New Yorkers, especially those directly affected by the disaster, those providing care to the victims or their families, and those working in the relief effort are vulnerable to experiencing emotional distress in response to the events of September 11th. The following American Red Cross and Department of Mental Health Hotlines can provide direct access to services:

<b>American Red Cross</b>	<b>(914) 946-6500</b>
<b>Westchester County Mental Health Association</b>	<b>(914) 345-5900</b>
<b>Westchester Crisis Hotline</b>	<b>(914) 347-6400</b>

**B. Environmental Risks Posed by Asbestos and Dust:** Asbestos was used in the construction of the World Trade Center. Outdoor air monitoring in the immediate vicinity of the World Trade Center performed by various city, state and federal agencies indicate that, in general, asbestos levels are low; most readings have not exceeded workplace or residential standards for asbestos exposure. Based on the air monitoring results, short-term health effects from exposure to asbestos are not expected. There are no tests that can be done, including chest radiographs, to tell if exposure has occurred, or to predict if pulmonary disease will occur in the future. At a minimum, anyone who needs to enter the secured area within one block of the World Trade Center should wear a hard hat, eye protection, sturdy shoes or work boots, long sleeve shirts and long pants. A NIOSH-approved dust mask (e.g., N 95 respirator) should be worn, especially during dusty conditions.

Environmental testing is ongoing to monitor levels of asbestos, dust particulates and other potentially hazardous materials within the affected site and in other off-site locations. In addition, the NYCDOH is continuously monitoring issues related to the environment, food and water safety, rodent control, radiation levels, and the health and safety of workers in the area around the World Trade Center site.

#### **V. Clinical Recognition and Management of Suspected Bioterrorism Events**

Healthcare providers in Westchester County should be alert to the illness patterns and diagnostic clues that might signal an unusual infectious disease outbreak due to the intentional release of a biological agent and should report these concerns immediately to the Westchester County Department of Health.

A one page reference table containing more detailed information on the clinical presentation, laboratory diagnosis, isolation procedures, treatment, and post-exposure prophylaxis, for the more likely bioterrorist agents is being FAX'd under separate cover following the current document.

Unlike a chemical or nuclear release, the covert release of a biological agent will not have an immediate impact because of the delay between exposure and illness onset. Consequently, the first indication of a biological attack may only be identified when ill patients present to physicians or other healthcare providers for clinical care.

Look for the following clinical and epidemiological clues that may be suggestive of a possible bioterrorist event:

- Any unusual increase or clustering in patients presenting with clinical symptoms that suggest an infectious disease outbreak (*e.g., > 2 patients presenting with an unexplained febrile illness associated with sepsis, pneumonia, adult respiratory distress, mediastinitis, or rash; or a botulism-like syndrome with flaccid muscle paralysis especially if occurring in otherwise healthy individuals*)
- Any case of a suspected or confirmed communicable disease that is not endemic in Westchester County (*e.g., anthrax, plague, tularemia, smallpox, or viral hemorrhagic fever*) or that occurs in a person without a travel history to an endemic area

- Any unusual age distributions for common diseases (e.g., an increase in what appears to be a chickenpox-like illness among adult patients)
- Any unusual temporal and/or geographic clustering of illness (e.g., persons who attended the same public event or religious gathering)
- Any sudden increase in the following non-specific syndromes, especially if illness is occurring in previously healthy individuals and if there is an obvious common site of exposure:
  - Respiratory illness with fever
  - Gastrointestinal illness
  - Encephalitis or meningitis
  - Neuromuscular illness (e.g., botulism)
  - Fever with rash
  - Bleeding disorders
- Simultaneous disease outbreaks in human and animal populations

Some infections caused by biological agents present with distinctive signs that can provide valuable diagnostic clues. In previously healthy persons presenting with a febrile illness, the following signs and symptoms are highly suggestive of infection with certain biological agents:

<u>Diagnostic sign</u>	<u>Disease</u>
• Widened mediastinum on CXR:	Inhalational anthrax
• Pneumonia with hemoptysis:	Pneumonic plague
• Vesicular/pustular rash starting on face and hands, with all lesions at the same stage of development:	Smallpox

Similarly, microbiology laboratory staff should be alert to microbiologic clues that may indicate the presence of a potential bioterrorist agent. For example, blood cultures growing Gram-positive rods, especially if found in multiple cultures and/or the clinical syndrome is suggestive of anthrax, should be evaluated for *Bacillus anthracis*. Characteristics of *B. anthracis* include: Gram positive rods, often in chains; non-motile; non-hemolytic on sheep blood agar; positive for India Ink capsule stain if obtained from the blood; and a characteristic consistency of “beaten egg whites” when colonies are picked with an inoculating loop.

New York State Department of Health’s Wadsworth Center is a designated Level C laboratory under the national laboratory defense network and can conduct definitive diagnostic work on biological or chemical specimens in a suspected terrorist event. Please notify the Westchester County Department of Health at the number below for reporting and facilitating the testing of suspicious specimens.

Most of the potential pathogens that could be used as a biological weapon (e.g., anthrax, plague, and smallpox) present initially as a non-specific influenza-like illness. Therefore, an unusual pattern of respiratory or influenza-like illness (e.g., occurring out of season or large numbers of previously healthy patients presenting simultaneously) should prompt clinicians to alert the Westchester County Department of Health. These disease patterns might represent an early start to the influenza season, the introduction of a new pandemic strain, or could be the initial warning of a bioterrorist event.

Response to Suspected BT Event

**Any unusual cluster or manifestations of illness should be reported immediately to the Westchester County Department of Health at:**

**(914) 813-5159      Monday - Friday 8:30 AM - 4:30 PM**

**(914) 813-5000      7 days/week, 24 hours/day**

After learning of any suspicious disease cluster, the Westchester County Department of Health will initiate an immediate investigation to determine the clinical diagnosis, as well as the mode of transmission, and whether the cause is natural or intentional.

For more detailed clinical information on specific pathogens that might be used in a bioterrorist event, please consult the following references or Websites:

- American College of Physicians: <http://www.acponline.org/bioterr/>
- Association for Infection Control Practitioners: <http://www.apic.org/bioterror/>
- CDC Bioterrorism Preparedness and Response: <http://www.bt.cdc.gov>
- Johns Hopkins Center for Civilian Biodefense: <http://www.hopkins-biodefense.org>

In addition, the Johns Hopkins Center for Civilian Biodefense has written consensus guidelines on the medical and public health management of the primary bioterrorist agents, including smallpox, anthrax, botulism, plague and tularemia. These guidelines were published in the Journal of the American Medical Association and archived copies are available at <http://jama.ama-assn.org>.

- US Army Medical Research Institute of Infectious Diseases:  
<http://www.usamriid.army.mil/education/bluebook.html>

Thank you for your cooperation and assistance in dealing with these important issues.

Sincerely,

*Amy S. Rosenberg*

*Ada J. Huang*

Amy S. Rosenberg, M.D.  
Director, TB & Communicable Diseases

Ada J. Huang, M.D.  
Deputy Commissioner, Disease Control

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**REFERENCE TABLE TO FOLLOW AS SEPARATE FAX.**