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ATTENTION

Public Health Update

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

October 26, 2001

ALERT: Anthrax Investigations and Management Recommendations

- Healthcare providers who see patients in a high exposure risk group (e.g., postal workers, especially those who work in New York City, or employees of media corporations or other high profile companies/institutions) presenting with a recent onset of a non-specific febrile, flu-like illness should consider the possibility of inhalational anthrax. Providers should consider obtaining blood cultures, a complete blood count and a chest radiograph to evaluate for mediastinal widening and/or pleural effusions. A 48-hour course of oral antibiotics (ciprofloxacin or doxycycline) while awaiting culture results should be considered only for those patients who belong to high-risk groups.
- The initial law enforcement assessment of the potential bioterrorist incident is critical in determining the appropriate medical management of the patient. All such incidents must be reported to and evaluated by law enforcement (local police) prior to medical evaluation unless the patient's clinical status warrants immediate attention. Law enforcement determination of whether an incident is a likely or unlikely bioterrorist event should be routinely obtained in the medical history of all such patients. If an event has been assessed by law enforcement as likely for a bioterrorist event and a powder is available for testing, in most cases further medical evaluation and/or treatment can await the test results of the powder.
- In the absence of known exposure to anthrax, the value of nasal swab testing to determine the need for post-exposure prophylaxis is not known. Therefore, the health department strongly discourages nasal swab testing of individuals without a known exposure to anthrax.
- Medical providers who have already received their influenza vaccine supply should continue to vaccinate their high-risk patients.

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

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

- 1 – Hospital Administration
- 2 – All Medical and Nursing Staff, including dermatology and radiology staff
- 3 – Emergency Departments
- 4 - Hospital Safety Director
- 5 – Hospital Pharmacy and Laboratories

1. Multi-state Outbreak of Intentional Anthrax Cases: To date, there have been 15 cases (9 confirmed and 6 suspect cases based on current case criteria developed by the Centers for Disease Control and Prevention) of intentional anthrax in the United States, involving worksites in Florida, New York City, New Jersey and the District of Columbia (DC). Of these, 7 were associated with a media corporation (including all NYC cases) and 8 occurred among postal workers. Three of these cases were fatal; all three had inhalational anthrax (case fatality rate for inhalational anthrax of 43%). Three threat letters (2 from NYC and one from DC) have been identified as containing *Bacillus anthracis* spores.

Inhalational anthrax: Seven cases of confirmed or suspected inhalational anthrax have occurred in the United States since October 1, 2001. Five of these cases were announced over the past four days. They include four postal workers in Washington, DC who worked in the Brentwood facility, which sorts all mail for distribution to government offices in Washington, DC. All four cases are laboratory confirmed based on positive blood cultures for *B. anthracis*. Two of these cases were fatal. In addition, one postal worker from the Hamilton facility in Trenton, New Jersey meets the Centers for Disease Control and Prevention's (CDC) criteria for a suspected case of inhalational anthrax based on a positive polymerase chain reaction test (PCR) of pleural fluid; this patient is hospitalized and on antibiotic therapy. Active case finding for additional cases associated with these two mail distribution centers is ongoing.

Common clinical features among these recent cases include a prodromal illness of 2-5 days duration with fatigue, headache, dry cough, and chest tightness. Fever was reportedly present in 2 (50%) patients prior to admission. Admission chest radiographs were all abnormal and revealed mediastinal adenopathy (n=2), hilar fullness (n=2) and/or pleural effusions (n=2). Blood cultures grew gram-positive bacilli within 18 hours.

The other two laboratory-confirmed cases of inhalational anthrax were announced previously, and included two workers at the American Media Incorporated building in Boca Raton, Florida. The index patient, a 63-year-old male, was admitted to the hospital on October 2 with fever and altered mental status; despite antibiotic therapy he deteriorated and died on October 5th. *B. anthracis* was cultured from his spinal fluid and blood. The second patient was admitted to a local hospital on October 1st with pneumonia; he was diagnosed with anthrax based on a positive PCR test of hemorrhagic pleural fluid, immunohistochemical stain of a pleural biopsy and serologic testing. He remains hospitalized on antibiotic therapy.

There are currently no cases of suspected or confirmed inhalational anthrax in Westchester County or New York City. Active surveillance for inhalational anthrax was conducted this week by the NYCDOH, with telephone outreach to staff in Intensive Care and Infection Control Departments throughout NYC to ensure complete case ascertainment. No suspect cases were identified. The Westchester County Department of Health (WCDH) continues its active surveillance of hospital emergency room activity and also has not identified any suspect cases.

The NYCDOH has continued syndromic surveillance at 18 sentinel emergency departments (using electronic triage logs) as well as by monitoring 911 calls. Data are analyzed daily at the NYCDOH 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 NYCDOH staff.

To date, NO unusual disease clusters suggestive of the early or late prodromal stages of inhalational anthrax have been identified by these two syndromic surveillance systems. Although the WCDH does not currently have such electronic syndromic surveillance systems in place, any report of clustering or an increase in a particular disease syndrome is immediately investigated by the WCDH.

Cutaneous anthrax: There have been 8 cases of cutaneous anthrax (5 confirmed and 3 suspect) in the United States – 5 in New York City (all media related) and 3 in New Jersey (all postal workers). The 5th New York City case was first reported to the NYCDOH on October 10th, when a co-worker of the index patient at NBC News presented to her physician due to concern that her skin lesions may have also been caused by anthrax, given the presumptive diagnosis of the index case and their common exposure to a suspected contaminated letter. The patient is a 23 year old female who opened the threat letter that was subsequently found to contain anthrax spores and approximately 9 days later she developed skin lesions on her face as well as cervical adenopathy. Over the next few days, this area of her face became swollen and she reported associated symptoms of fever, headache, fatigue and myalgias. The lesions were small, raised ulcerative lesions with an erythematous base; and reportedly developed a blackened center. She had similar isolated lesions on her buttocks and thigh. She saw a physician on October 1st, and was treated with cephalexin for presumed impetigo. On October 10th, she saw a second physician who was also treating the index patient from NBC News and he reported his concerns to the NYCDOH. A skin biopsy was obtained on October 13th that tested negative for *Bacillus anthracis* by culture, immunohistochemical staining and PCR. However, an ELISA IgG antibody test to protective antigen was borderline positive on serum specimens obtained on October 12 and 16th. Over the past 3 weeks, based on the current investigations in Florida, New York City and elsewhere, there has been an ongoing evaluation of the interpretative criteria for this serologic assay. The CDC reported to the NYCDOH that this case does meet CDC criteria for a suspect case, as she had a clinically compatible lesion, which was epidemiologically linked to a confirmed environmental exposure with one supportive laboratory test for *B. anthracis* infection.

In NYC, there have been four additional cutaneous cases, with onset dates between September 22 and October 1st. All had ulcerative skin lesions, associated with significant edema in the surrounding tissues and the development of a blackened eschar within several days of illness onset. All four patients also had an association with a major media outlet in NYC; all are currently doing well and responded to antibiotic therapy. The NYCDOH continues to conduct active case finding for additional cutaneous anthrax cases and is facilitating laboratory testing at CDC for all potential cases under investigation.

In addition, three postal workers working in New Jersey were also recently diagnosed with cutaneous anthrax. Two patients had illness onsets in late September, similar to the NYC cases, and were recognized as cutaneous anthrax after hearing the media reports on the positive anthrax letter sent to NBC News that had been postmarked from Trenton, New Jersey. The third worker became ill on October 14th. Two patients met CDC criteria for laboratory confirmation based on at least two of the following laboratory tests: immunohistochemical, serologic or PCR testing; the third is a suspected case based on a single positive serology and a compatible clinical presentation.

Ongoing investigations at the affected postal facilities: All five postal workers with inhalational anthrax were employed in facilities with automated mail sorting machines; it is hypothesized that the pressure from the automated sorting machines and/or cleaning of this equipment using compressed air may have caused aerosolization of anthrax spores contained within contaminated mail. The US Postal Service and CDC have recommended starting antibiotic prophylaxis, pending further environmental investigations, for employees at the central mail distribution centers in Washington, DC (Brentwood Facility) and Trenton (Hamilton Facility), as well as postal offices in the distribution system that may have handled the recently contaminated anthrax letters. The CDC has issued interim guidelines for protecting postal workers and mail handlers involved in sorting and distributing mail that include engineering control measures, modifications in how mailroom equipment is cleaned, and personnel protection equipment for workers at risk.

The US Postmaster General has also decided to offer antibiotic prophylaxis to employees at the NYC postal sites that handled the contaminated letters postmarked September 18th that were delivered to NBC and the New York Post. These sites include the Morgan Central Processing Center on 30th St between 9th and 10th Ave, as well as the following postal facilities: the James A. Farley, Times Square, Radio City Music Hall, Ansonia and Rockefeller Center. Postal employees from these sites should be referred to their employers to obtain more detailed information on where to receive medications. Laboratory investigations are currently being conducted to assess for environmental contamination, especially in the mail sorting area at the Morgan Central Processing Center.

Susceptibility results:

Susceptibility results have been performed on the NBC, Florida and Washington, DC isolates, and all are sensitive to penicillin, amoxicillin, chloramphenicol, tetracycline, clindamycin, ciprofloxacin, and vancomycin. Susceptibilities of the isolate to ceftriaxone and erythromycin were considered intermediate. (Note: Naturally occurring *Bacillus anthracis* is generally resistant to extended spectrum cephalosporins). The CDC reports that susceptibility data indicates the presence of a cephalosporinase and suggests the presence of a penicillinase as well. Therefore, CDC advises against using penicillin alone for prevention or treatment of anthrax infections. More detailed information on the revised antibiotic recommendations for management of anthrax exposures and clinical disease are available in today's MMWR at www.cdc.gov/mmwr, along with updated clinical and epidemiologic data from the ongoing multi-state investigation.

The small number of clinical cases to date resulting from confirmed or presumed exposure to envelopes contaminated with anthrax spores suggest that the risk for *Bacillus anthracis* from such incidents is limited, and that the public health response should focus on those persons who were directly exposed by opening or handling letters confirmed or suspected to contain anthrax.

2. Reporting Suspect Cases of Inhalational or Cutaneous Anthrax to the WCDH:

WCDH requests immediate reporting of all suspected cases of anthrax. Detailed information on how to evaluate patients suspected to have inhalational anthrax, including instructions on laboratory diagnosis, is included in the accompanying document, "Evaluation of Suspected Inhalational Anthrax Cases."

An increased index of suspicion should be maintained for inhalational anthrax among persons in higher risk groups, based on the epidemiology of the recent intentional anthrax cases in the United States. These include postal workers (especially postal employees who work in mail distribution centers where automated sorting machines are located), persons who work for media corporations or other high profile companies/institutions (especially if they handle mail), and persons who have had a potential risk exposure - such as, aerosolization of powder when opening or handling a powder-containing envelope that is deemed to be a credible threat (e.g., addressed to a high-profile person or corporation, or if the letter contains a written threat). Any severe infectious disease in such persons should be reported immediately to the WCDH.

Initial routine microbiological testing of clinical specimens should be performed in the hospital laboratory. Specimens that are suspicious for *Bacillus anthracis* should be reported to the WCDH so that further testing can be arranged at the appropriate laboratory.

Clinical microbiology laboratories should take care not to regard all isolates of *Bacillus species* as contaminants, especially if isolated from sterile sites {blood, cerebrospinal or pleural fluid} and/or multiple cultures are positive from the same patient. The WCDH recommends that all sterile site *Bacillus* isolates be further evaluated, and if non-motile or non-hemolytic, and/or if the clinical syndrome is suggestive of anthrax, the isolates should be immediately referred to the WCDH for arrangements for further testing.

More detailed guidelines for testing for *Bacillus anthracis* are available on the following Websites:

New York State DOH: <http://www.wadsworth.org/divisions/infdis/bacti/educational.htm>

American Society of Microbiology: <http://www.asmsa.org/pcsrc/bioprep.htm>
CDC Bioterrorism Preparedness and Response: <http://www.bt.cdc.gov>

Due to limited laboratory capacity at CDC, immunohistochemical, PCR and serologic testing is being prioritized for patients who meet the clinical criteria for a suspicious case as outlined in the Appendix. All suspected cases must be reported before any specimens are accepted for testing. When you call to report a case, we will help determine whether additional testing is necessary, and, if so, help you arrange it.

Any suspected cases of anthrax should be immediately reported to the WCDH at:

(914) 813-5159 Monday - Friday 8:30 AM - 4:30 PM
(914) 813-5000 7 days/week, 24 hours/day

An excellent reference on anthrax includes: Inglesby TV, et al. Anthrax as a biological weapon: Medical and Public Health Management. JAMA 1999;281:1735-1745. This reference is available online at: <http://jama.ama-assn.org>.

3. INTERIM GUIDELINES: Medical Management of Milder Illness among Persons at Higher Risk for Exposure to Contaminated Letters (including Postal Workers who Work in NYC): In light of the ongoing outbreak of intentional anthrax associated with contaminated letters, the WCDH requests that physicians maintain an increased level of awareness for the occurrence of milder illness that may represent the early warning symptoms of inhalational disease among persons at higher risk for exposure to aerosolized anthrax spores from contaminated letters. At the present time, diagnostic testing to rule out anthrax infection and empiric antibiotic treatment is prudent for persons in the high-risk groups listed below who develop flu-like illness. These interim guidelines should be in effect until law enforcement authorities identify and eliminate the source of these exposures and/or after environmental control measures in the postal system are put into place to decrease the risk of infection from exposures to a letter that has been intentionally contaminated with anthrax spores.

Inhalational anthrax usually begins with a brief prodrome resembling a viral illness. Symptoms are non-specific and may include fever (usually low grade), headache (may be severe), chest tightness, non-productive cough, nausea, vomiting, abdominal pain, malaise and muscle aches. Clues to help differentiate the respiratory viruses that are more common this time of year from the early prodrome of inhalational anthrax include the presence of upper respiratory symptoms, such as rhinorrhea or sneezing; the presence of these symptoms would make anthrax less likely.

WCDH requests that all providers seeing patients with a non-specific, febrile flu-like illness obtain a thorough employment history, including whether the patient handles mail, and ask about any exposure to suspicious letters or powders in the preceding week. High-risk groups are defined as any of the following:

- Postal workers, especially those who work in New York City, and especially if they work or spend time in (a) a mail distribution center where automated sorting machines are operating or (b) in a Manhattan postal facility (Since, to date, all five NYC cutaneous anthrax cases and both contaminated letters occurred in Manhattan).
- Employees of media corporations or other high-profile companies/institutions (e.g., government organizations), especially if they routinely handle mail.
- Persons reporting a potential high-risk exposure to contaminated powder in the week prior to illness onset (e.g., aerosolization of powder when opening or handling a letter deemed to be a credible threat; criteria for a credible threat include an envelope containing powder that is either

(a) addressed to a high-profile person or corporation and/or (b) if the letter contains a written threat). In general, the WCDH will facilitate the rapid testing of such powders thereby clarifying the exposure risk.

Healthcare providers who see patients in one of these high risk groups presenting with a recent onset (i.e. within the preceding 7 days) of a non-specific febrile, flu-like illness should consider the possibility of early inhalational anthrax infection.

To assist in the diagnostic work-up, providers should consider obtaining blood cultures (obtained prior to the administration of antibiotics), a complete blood count and a chest radiograph (to evaluate for mediastinal widening and/or pleural effusions) to diagnose possible early inhalational anthrax infection. In addition, testing should also be performed to evaluate for the more common causes of respiratory or flu-like illness at this time of year (e.g., rapid influenza A and B tests and/or if available, viral nasopharyngeal cultures). These diagnostic tests should be performed in your medical care facility, and cases should only be reported to the WCDH if the CXR reveals mediastinal widening or if the cultures grow a suspicious *Bacillus* species.

Since the response to antibiotic therapy is much better if started during the early prodromal phase, a 48-hour course of oral antibiotics (ciprofloxacin or doxycycline) should be considered only in those persons with mild, nonspecific flu-like illness who belong to high-risk groups. Close follow-up of the patient over the next 48 hours is also recommended, with clear instructions to the patient and family to seek medical care if the patient's clinical status worsens. If the blood cultures and chest radiograph are negative, and the patient is stable or improved, antibiotic therapy could be discontinued after 48 hours or as clinically warranted.

It is important to note that WCDH does NOT advocate antibiotic treatment for non-specific febrile illness in the general public. These guidelines only refer to persons in high-risk groups based on the epidemiology of the current outbreak and its association with exposure to contaminated mail. These guidelines may need to be modified if cases occur outside of the current high risk groups listed above and/or as we obtain more information regarding the specific at-risk activities/conditions in the affected postal facilities in New Jersey and DC.

4. Revised Guidelines on Prescribing Prophylactic Antibiotics and Nasal Swab Testing:

The WCDH continues to strongly urge physicians NOT to prescribe prophylactic antibiotics for the general public. Although we recognize the heightened concern regarding the threat of bioterrorism with the unfolding events of the past several weeks, to date, there have been only 15 confirmed or suspected anthrax cases in the United States resulting from intentional exposure to anthrax though a threat letter sent in an envelope containing *Bacillus anthracis* spores. There has been no evidence to date of more widespread aerosol dissemination.

Therefore, prophylactic antibiotics should be limited to persons with a known exposure to a highly credible or laboratory-confirmed threat letter, or if prophylaxis has been recommended by local, state or federal public health authorities as part of an ongoing investigation at a specific work-site. Clinicians seeing patients who say they may have been exposed to anthrax should assess the individual risk of exposure.

Use of prophylactic antibiotics is not without risk. 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).

The WCDH discourages the routine use of nasal swabs for assessing patients concerned about exposure to anthrax, in the absence of a known exposure. Data from studies performed in monkeys demonstrates that nasal cultures are most likely to be positive in the first 48 hours after exposure to a contaminated powder, as was seen in the incident at Senator Daschle's office. The use of nasal swabs in recent

investigations in Florida and NYC has been for epidemiologic purposes, in order to help determine where suspicious letters were handled in the work area around a confirmed case. The results have been used to guide further investigation and to determine the source of exposure, and to make overall recommendations on prophylaxis for persons involved at the site regardless of individual test results.

In NYC, among the >2500 persons tested as part of the epidemiological investigations at the work-sites of all 5 cutaneous cases, the only persons who have tested positive for anthrax by nasal swab testing were the 3 individuals who handled the contaminated NBC letter on the day that it was retrieved and brought to the NYCDOH Public Health Laboratories. All three of these persons had been tested within hours of exposure to this letter.

There is no screening test available for the detection of anthrax infection in an asymptomatic person. The sensitivity and specificity and clinical value of nasal swab testing for an individual patient are unknown. The presence of anthrax spores in the nose only indicates recent exposure and has no predictive value regarding the dose of spores involved or risk of future infection or illness.

The one situation where nasal swab testing may be useful in an individual patient is in the situation where there is a highly credible threat exposure and there is no discrete environmental source to test, or if laboratory testing may be delayed. For example, a person receives a "blast" of powder in the face after opening a threatening letter and the powder was cleaned up before there was any evidence collection by police/FBI, or in a high-risk situation when laboratory testing may be delayed due to a backlog of specimens for testing.

Due to the tremendous number of powder incidents over the past week, public health laboratories throughout the country have been overwhelmed with specimens creating backlogs in getting results back to those affected. However, rapid testing of specimens in Westchester County is still being provided by the Westchester County public health laboratory. As results become available from each incident, the results will be reported back to the persons involved by the local police department which responded to the scene.

5. Available resources for additional information on the anthrax incidents in NYC: The NYCDOH has posted all prior Alerts on Anthrax and the World Trade Center attacks on their website: <http://www.nyc.gov/html/doh/html/cd/wtc1hcp.html>. This week, they are also posting photographs demonstrating the progression of cutaneous anthrax, as well as a more detailed protocol on the medical management of anthrax.

WCDH Public Health Updates are available on the Physician's Corner of our website at www.westchestergov.com/health/physicianscor.htm.

6. Importance of Starting Influenza Vaccinations for Patients at Higher Risk for Complications: Given the heightened concern about the recent intentional anthrax cases in the United States, and the difficulty in differentiating influenza from the early prodromal manifestations of inhalational anthrax, prevention and control activities targeting viral influenza are more important than ever. There have been no known documented cases of influenza in Westchester County this season. There has only been one isolated case of influenza based on DFA testing (viral cultures were not performed) in New York City so far this season; there has also been one confirmed outbreak of influenza A (H3N2 Panama) in a nursing home in Suffolk County in late September/early October. This strain is included in the 2001-2002 vaccine.

The early identification of influenza A in the New York area is a reminder of the importance of vaccinating all persons at high risk for complications from influenza and their close contacts, including healthcare workers. Although some delays are expected in the distribution of influenza vaccine this year, the situation will not be as severe as it was in 2000. Approximately 60% of the total supply is expected to be distributed by the end of October, an additional 30% will be delivered in November and the final 10% is expected in early December. Providers who have already received their vaccine should now begin

vaccinations for their high-risk patients. In November, all other persons for whom influenza vaccine is recommended should be immunized.

Current recommendations are for the following persons to receive influenza vaccination:

- all persons 50 years of age and older, with an emphasis on those over 65;
- persons > 6 months of age with chronic medical conditions such as heart disease, pulmonary disorders including asthma, diabetes, kidney disease, sickle cell anemia and thalassemia, and compromised immune systems (HIV or immunosuppressive therapy);
- residents of nursing homes and other chronic care facilities that house persons of any age who have chronic medical conditions;
- pregnant women who will be in the second or third trimester of pregnancy during the influenza season;
- persons 6 months to 18 years on long term aspirin therapy;
- health care workers, including physicians, nurses, and other personnel in both hospital and outpatient-care setting including emergency rooms;
- close contacts of high-risk individuals including household members and persons who provide home care;
- employees of nursing homes, chronic care facilities, assisted living and other residences who have contact with persons at high risk.

People aged 50 to 64 years were included as a target group for yearly vaccination beginning in 2000, since up to one-third of people in this age group have underlying medical conditions that place them at high risk for complications from influenza. In an effort to simplify the guidelines and reach more of the population at risk, the American Academy of Family Physicians and the Immunization Practices Advisory Committee of the Centers for Disease Control and Prevention recommend annual influenza vaccination for anyone 50 years of age and older.

Evaluation of Suspected Inhalational Anthrax Cases (Last revised 10/26/01)

The WCDH requests immediate reporting of all suspected cases of inhalational anthrax by telephone. The WCDH will discuss the case history with you and determine the likelihood of anthrax, and help arrange appropriate laboratory testing at the Westchester County public health laboratory and CDC if indicated.

Clinical Description of Inhalational Anthrax:

Inhalational anthrax usually presents as a brief prodrome resembling a viral respiratory illness followed by development of hypoxia and dyspnea, with radiographic evidence of mediastinal widening. This is the most lethal form of anthrax, and requires inhaling an infectious dose of 8,000-40,000 spores of *B. anthracis*. The incubation period of inhalational anthrax among humans is unclear, but it is reported to most often range between 1 and 7 days, and on rare occasion can extend out to 60 days post exposure. Initial symptoms may include low-grade fever, muscle aches, headache, non-productive cough, chest discomfort, nausea and malaise. These symptoms may progress to respiratory failure and shock. Meningitis frequently develops, and the spinal fluid may be hemorrhagic. Case-fatality is extremely high, even with all possible supportive care including appropriate antibiotics. Early treatment, in the prodromal stage, is much more effective in preventing severe illness and death.

A suspicious case of inhalational or meningeal anthrax is defined as a patient with:

1. Sepsis or respiratory failure with a widened mediastinum,
2. Sepsis with gram-positive rods OR a suspicious *Bacillus species** identified in blood, pleural fluid or cerebrospinal fluid.
3. Unexplained death in a febrile patient

WCDH requests that all providers seeing patients with febrile respiratory disease obtain a thorough employment history, including whether the patient handles mail, and ask about any exposure to suspicious letters or powders in the preceding 1-2 weeks. A high index of suspicion should be maintained when evaluating patients who are employees of the United States Postal Service, employees of media organizations or other high profile employers (i.e., government organizations), or persons with recent exposure to a threat letter that may have potentially contained contaminated powder.

HOW TO REPORT A SUSPICIOUS CASE OF INHALATIONAL ANTHRAX:

Call the WCDH immediately:

(914) 813-5159 Monday - Friday 8:30 AM - 4:30 PM
(914) 813-5000 7 days/week, 24 hours/day

Please have the following information available:

- Patient name
- Patient contact information
- Medical history
- Illness onset date
- Chest X-ray and CT scan results
- Presence of systemic symptoms
- Treatment history
- Laboratory data
- Current employment history, including if routinely handles mail at work
- Exposure to powder in a threatening letter

* Suspicious *Bacillus species*: large, Gram-positive rods with spores; non-motile and non-hemolytic *Bacillus species* on preliminary culture.

This information will be used to help determine the patient's risk for anthrax infection. When you call to report a case, we will help to determine whether further testing is necessary.

HOW TO ARRANGE FOR TESTING:

If it is determined that the patient is A SUSPICIOUS CASE OF INHALATIONAL anthrax based on the criteria listed above, the initial diagnostic workup can be performed at your hospital and should include the tests listed below:

1. Routine blood cultures (Organism may be seen on unspun blood)
2. If meningeal signs are present, gram stain and culture of CSF.
3. If pleural fluid is present, gram stain and culture of pleural fluid
4. Chest X-ray and/or chest CT to assess for mediastinal and hilar adenopathy

If any of the above tests are suggestive of anthrax, the following specimens should be submitted to the WCDH for referral to another laboratory such as CDC:

1. Cultures positive for suspicious *Bacillus species**
2. Whole blood for PCR -(plain red top tube)
3. Acute serum for ELISA testing for *B. anthracis* at CDC (Ideally within 5 days of illness onset)
 - a. Collect ~5 ml of whole blood in a serum separator tube, refrigerate or keep at room air
 - b. Spin down as soon as possible
 - c. After spinning, separate serum and freeze the tube of serum at -70 C or place on dry ice
4. Convalescent serum for ELISA testing for *B. anthracis* at CDC (14-21 days after acute sera)
 - a. Collect ~5 ml of whole blood in a serum separator tube, refrigerate or keep at room air
 - b. Spin down as soon as possible
 - c. After spinning, separate serum and freeze the tube of serum at -70 C or place on dry ice.

Please be sure to completely and clearly label all specimens with the following information:

- PATIENTS FIRST AND LAST NAME
- DATE OF BIRTH
- DATE OF COLLECTION OF SPECIMEN
- SITE OF SPECIMEN COLLECTION
- METHOD OF PRESERVATION (formalin, paraffin, frozen)

* Suspicious *Bacillus species*: large, Gram-positive rods with spores; non-motile and non-hemolytic *Bacillus species* on preliminary culture.

The WCDH has established an information line to answer your patient's concerns about bioterrorism and anthrax threats:

WCDH Information Line (914) 813 - 5609

24 hours, 7 days/week

Staffed Monday-Friday 8:30 AM - 4:30 PM

Helpful Websites

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

- 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>
- World Health Organization (WHO): Guidelines for the Surveillance and Control of Anthrax in Humans and Animals
www.who.int/emc-documents/zoonoses/whoemczdi986c.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.
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