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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 18, 2001
9:00AM

ALERT: Anthrax Investigations

The Westchester County Department of Health (WCDH):

- Requests Immediate Reporting of any Suspected Cases of Cutaneous, Inhalational, Gastrointestinal, or Central Nervous System Anthrax
- Strongly Recommends Against Prescribing Prophylactic Antibiotics in the Absence of a Credible Threat of Anthrax Exposure
- Provides Guidance Regarding the Handling of Suspicious Packages and Powders
- Provides Guidance Regarding the Medical Management of Potential Anthrax Exposures
- Provides a Fact Sheet Developed by the New York City Department of Health for ABC Studio Employees
- Encourages Healthcare Providers to Remain Alert and Immediately Report any Unusual Disease Manifestations and Clusters

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. Cutaneous Anthrax Cases in New York City: A second case of cutaneous anthrax has been identified in New York City. This case occurred in an infant whose parent works at ABC Studios. The infant visited the ABC studio on September 28, and developed a cutaneous lesion 24 hours later, that was described as an erythematous, weeping sore with surrounding edema that

appeared to be nontender. Despite treatment with oral Augmentin, the lesion progressed and the child was hospitalized on October 1st and treated with intravenous Unasyn and clindamycin. The skin lesion became ulcerative, and developed a black eschar; the infant also developed hemolytic anemia, thrombocytopenia, transient hypotension, and required an intensive care admission.

The diagnosis of cutaneous anthrax was first considered on October 12, after the announcement of the NBC case, and NYCDOH was promptly notified. A prior blood specimen from October 2 was obtained and tested positive for *Bacillus anthracis* by polymerase chain reaction testing at the Centers for Disease Control and Prevention (CDC), and a skin biopsy obtained on October 13 was positive by immunohistochemical staining at CDC for the cell wall antigen of *B. anthracis*. NYCDOH, in collaboration with the New York Police Department and the Federal Bureau of Investigation, is currently conducting an investigation at both ABC Studios and the patient's home to try to determine the source of exposure. Since the onset of illness in the infant was over 2 weeks ago, and the usual incubation period for cutaneous anthrax is 1-7 days (up to 12 days), it is highly unlikely that anyone else who is not currently ill is at risk for developing disease. Therefore, at this time, the NYCDOH is not recommending prophylactic antibiotics or nasal swab testing.

The prior case of cutaneous anthrax occurred in a 38 year old woman who works at NBC and had exposure to a letter postmarked September 18th, which was found to contain *B. anthracis*. Susceptibility results are pending. This patient is currently on antibiotics and is recovering. In addition, two laboratory workers from NYCDOH and a NYC Police Officer who handled this contaminated envelope appear to have been exposed to the spores of *B. anthracis*, as indicated by the presence of anthrax spores on nasal swab specimens.

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

WCDH requests immediate reporting of all suspected cases of cutaneous anthrax.

Cutaneous anthrax usually presents with a skin lesion evolving from a papule, through a vesicular stage, to a depressed black eschar. This is the most common naturally occurring type of infection (>95%) and usually occurs after skin contact with contaminated meat, wool, hides or leather from infected animals. Incubation period ranges from 1-12 days. Skin infection begins as a small papule, progresses to a vesicle in 1-2 days followed by a blackened eschar (necrotic ulcer). The lesion is usually painless and the tissue surrounding the skin lesion is often erythematous, and may have varying degrees of edema. Patients also may have fever, malaise, headache and regional lymphadenopathy. The case fatality for cutaneous anthrax is 20% without and 1% with antibiotic treatment. Cutaneous anthrax is not easily transmissible from person to person, although there is a very low risk of infection if there is direct contact with the drainage from an open sore.

Given the recent events in NYC and other places in the United States, the WCDH requests that providers report patients with any skin lesion that looks suggestive of anthrax (e.g., painless ulcer associated with edema and/or a black eschar) or any skin lesion even if it does not fit the classical description, if any one of the following are present:

- a. a history of working in or having contact with a person who works in a major media establishment, particularly if the patient handles mail
OR
- b. a history of exposure to a threatening letter with powder
OR
- c. laboratory evidence suggestive of possible *B. anthracis* infection (including gram positive bacilli on gram stain from a skin lesion or sterile fluid, or encapsulated non-motile non-hemolytic bacilli on culture from any bodily fluid or site)

For patients meeting these criteria, WCDH will assist providers in obtaining appropriate diagnostic specimens. Recommended specimens include acute and convalescent sera, a culture and gram stain of material swabbed from a vesicle or from the border area of the eschar, and a skin biopsy

(fresh frozen and formalin-fixed).

All patients with a skin lesion characteristic of cutaneous anthrax, with or without a known exposure, should be treated presumptively with antibiotics (ciprofloxacin or doxycycline until susceptibilities are known, penicillin or amoxicillin if susceptible) until laboratory testing is completed. If laboratory testing is positive for anthrax, treatment should continue until the lesion resolves.

The WCDH also requests immediate reporting of any suspect cases of the more severe forms of anthrax, including inhalational, meningial or gastrointestinal anthrax.

Any previously healthy patient with the following clinical presentations should be immediately reported to the WCDH:

- A severe, unexplained febrile illness or death,
- Sepsis or respiratory failure with a widened mediastinum, or
- Sepsis with gram-positive rods or a *Bacillus* species identified in the blood or cerebrospinal fluid (Clinical microbiology laboratories should take care not to regard all isolates of *Bacillus* species as contaminants, especially if isolated from sterile sites {blood, cerebrospinal 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 for further testing by calling the WCDH at the numbers below.)

Important Information on Anthrax for Clinical Microbiologists:

Laboratory issues with respect to diagnosing *Bacillus anthracis* include:

- *Bacillus anthracis* can be isolated primarily from blood, sputum, CSF, vesicular fluid or eschar, and stool (if gastrointestinal anthrax).
- Laboratory specimens should be handled in Biosafety Level 2 facilities.

Gram stain morphology of *B. anthracis*

- Broad, gram-positive rod: 1-1.5 x 3-5 μ occurring singly or in short chains, often with squared off ends
- Oval, central to subterminal spores: 1 x 1.5 μ with no significant swelling of cell
- Spores usually NOT present in clinical specimens unless exposed to atmospheric O₂
- In advanced disease, a gram stain of unspun blood may be positive.

Colonial and Isolate Characteristics of *B. anthracis*

- After incubation on a blood agar plate for 15-24 hours at 35-37°C, well isolated colonies are 2-5 mm in diameter; heavily inoculated areas may show growth in 6-8 hours
- Gray-white, flat or slightly convex colonies are irregularly round, with edges that slightly undulate, and have "ground glass" appearance
- Often have comma-shaped protrusions from colony edge ("Medusa head" colonies)
- Tenacious consistency (when teased with a loop, the growth will stand up like a beaten egg white)
- Non-hemolytic (weak hemolysis may be observed under areas of confluent growth in aging cultures and should NOT be confused with real β -hemolysis)
- Non-motile
- Susceptible to gamma phage lysis

Presumptive Identification key for *Bacillus anthracis*

- Non-hemolytic
- Non-motile
- Encapsulated (requires India ink to visualize the capsule)
- Gram-positive, sporeforming rod

(Detailed guidelines for testing for *Bacillus anthracis* are available on the NY State DOH website at <http://www.wadsworth.org/divisions/infdis/bacti/educational.htm>)

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. Avoid Prescribing Unnecessary Antibiotics:

The WCDH strongly urges physicians NOT to prescribe prophylactic antibiotics for the general public. 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 also strongly recommends that physicians not prescribe antibiotics for their patients to stockpile for future use: stockpiling of antibiotics could lead to inappropriate patient decisions to self-medicate, incomplete courses of antibiotics that might select for resistant organisms, the eventual use of expired medications, and to the depletion of national supplies for medically indicated uses.

4. Anthrax Vaccines Not Commercially Available or Recommended

There is currently no indication for the use of anthrax vaccine. We have received numerous questions regarding the availability of this vaccine. The vaccine is 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.

Guidelines on How to Handle Suspicious Letters or Packages

Many facilities in communities around the country have received anthrax threat letters. Anthrax organisms can cause infection in the skin, gastrointestinal system, or the lungs. To do so, the organism must gain entry into the skin, be swallowed, or inhaled as a fine aerosolized mist. Disease can be prevented after exposure to the anthrax spores by early treatment with appropriate antibiotics. Fortunately, to aerosolize anthrax into the very small particles required to cause the most severe form of disease, inhalational anthrax, requires a great deal of technical skill and special equipment.

Some characteristics of suspicious packages and letters include the following:

- Contains a threatening note
- Contains a suspicious powdery substance
- Excessive postage
- Handwritten or poorly typed addresses
- Incorrect titles or title but no name
- Misspellings of common words
- Oily stains, discolorations or odors
- No return address
- Excessive weight
- Lopsided or uneven envelope
- Protruding wires or aluminum foil
- Excessive security material such as masking tape, string, etc.
- Visual distractions or ticking sound
- Marked with restrictive endorsements such as “Personal” or “Confidential”
- Shows a city or state in the postmark that does not match the return address

SUSPICIOUS UNOPENED LETTER OR PACKAGE MARKED WITH THREATENING MESSAGE SUCH AS “ANTHRAX”:

1. Do not shake or empty the contents of any suspicious envelope or package.
2. PLACE the envelope or package in a plastic bag or some other type of container to prevent leakage of contents.
3. If you do not have any container, then COVER the envelope or package with anything (e.g., clothing, paper, trash can, etc.) and do not remove this cover.
4. Then LEAVE the room and CLOSE the door, or section off the area to prevent others from entering (i.e., keep others away).
5. WASH your hands with **soap and water** to prevent spreading any powder to your face.
6. What to do next...
 - If you are at **HOME**, then report the incident to local police.
 - If you are at **WORK**, then report the incident to local police, **and** notify your building security official or an available supervisor.
7. LIST all people who were in the room or area when this suspicious letter or package was recognized. Give this list to both the local public health authorities and law enforcement officials for follow-up investigations and advice.

ENVELOPE WITH POWDER AND POWDER SPILLS OUT ONTO SURFACE:

1. DO NOT try to CLEAN UP the powder. COVER the spilled contents immediately with anything (e.g., clothing, paper, trash can, etc.) and do not remove this cover!

2. Then LEAVE the room and CLOSE the door, or section off the area to prevent others from entering (i.e., keep others away).
3. WASH your hands with **soap and water** to prevent spreading any powder to your face.
4. What to do next...
 - If you are at **HOME**, then report the incident to local police.
 - If you are at **WORK**, then report the incident to local police, **and** notify your building security official or an available supervisor.
5. REMOVE heavily contaminated clothing as soon as possible and place in a plastic bag, or some other container that can be sealed. This clothing bag should be given to the emergency responders for proper handling.
6. SHOWER with **soap and water** as soon as possible. *Do Not Use Bleach Or Other Disinfectant On Your Skin.*
7. If possible, list all people who were in the room or area, especially those who had actual contact with the powder. Give this list to both the local public health authorities so that proper instructions can be given for medical follow-up, and to law enforcement officials for further investigation.

QUESTION OF ROOM CONTAMINATION BY AEROSOLIZATION:

For example: small device triggered, warning that air handling system is contaminated, or warning that a biological agent released in a public space.

1. Turn off local fans or ventilation units in the area.
2. LEAVE area immediately.
3. CLOSE the door, or section off the area to prevent others from entering (i.e., keep others away).
4. What to do next...
 - If you are at **HOME**, then **dial "911"** to report the incident to local police.
 - If you are at **WORK**, then **dial "911"** to report the incident to local police **and** notify your building security official or an available supervisor.
5. SHUT down air handling system in the building, if possible.
6. If possible, list all people who were in the room or area. Give this list to both the local public health authorities so that proper instructions can be given for medical follow-up, and to law enforcement officials for further investigation.

Protocol for Response to Possible Anthrax Exposures

Persons involved in an anthrax threat involving a letter with “powder” should report the incident immediately to their local police department, who will conduct a credibility threat assessment. The WCDH will only accept specimens of powder or letters or other substances for testing for anthrax after local law enforcement has deemed that a threat has been made and the specimen has been approved by the Westchester County Department of Emergency Services and WCDH.

Assessment of Individual Risk of Exposure

It is important to assess the nature of the possible exposure to anthrax. Factors that need to be assessed include the credibility of the exposure and whether the exposure might result in inhalational anthrax or cutaneous anthrax.

Credibility

The potential that a true exposure to anthrax has occurred is higher when:

- There is a distinct threatening message with the powder or substance
- A suspicious letter or package is involved (see above)
- The package has been opened (the substance is not contained)
- The package is from someone the recipient does not know
- The recipient is a "target" of political, military, religious or other significance

Situations with a lower credibility for the presence of anthrax include situations in which powder is found without a note or a situation in which a powder comes in an envelope with expected mail that is easy to trace to the sending source.

Route of Potential Exposure

- *Inhalational anthrax* generally requires a large dose of fine powder – particles 1-5 microns in size, a size necessary to get into the alveoli. It is technologically very difficult to disperse anthrax into particles this size. Re-aerosolization of particles on clothing and on surfaces into particles of this size is nearly impossible. Thus, the immediate risk to people “exposed” to letters or packages is small in the absence of aerosolization of the powder. Inhalational anthrax would be of concern if: a) a person got a face full of fine powder with heavy contamination of eyes, nose and throat; b) there was a real concern of aerosolization based on a warning that an air handling system is contaminated or warning that a biological agent was released in a public space.
- *Cutaneous anthrax* appears to require lower doses and is the most likely form of anthrax that could be caused by anthrax-contaminated letters and packages that did not have an obvious aerosolizing device. This is the likely route of exposure for the two recent cases in NYC. Given its characteristic clinical presentation and excellent prognosis if recognized early and treated, potential exposures can be managed by observation for the development of a suggestive skin lesion and prompt treatment as clinically needed.

Risk-based Medical Management of Possible Exposures

For asymptomatic patients who present for medical management after a stated exposure, the credibility of the exposure and the potential route of exposure need to be determined. If law enforcement has not already investigated the potential exposure, the local police department needs to be called first. If the patient states that law enforcement has already investigated the potential exposure, the medical provider should make an assessment of the credibility of the exposure using the criteria listed above. The following *interim* guidelines can be used in each situation to determine the necessity of cultures and/or treatment.

Low-credibility exposure situations and situations with *possible* cutaneous exposure

- If no clear-cut exposure, provide reassurance to the patient about the rarity of infection without known exposures. We do not recommend collecting a nasal swab or blood for a serological test to confirm that there is no evidence of exposure to anthrax.
- If the only potential exposure to a powder/suspicious substance is cutaneous (the most likely route of exposure after finding powder on a surface, or opening a letter with powder in it), provide advice on what to look for (red spot -> papule -> vesicle -> black center over several days to a week), reassure the patient that cutaneous anthrax can be readily diagnosed and easily treated. We do not recommend collecting a nasal swab or blood for serology in the absence of a skin lesion.

High-credibility exposure situations

- If the situation suggests a true potential for inhalational exposure (e.g., a face and nose full of powder from a highly suspicious situation), consider starting preventive therapy (see CDC post-exposure guidelines below) until anthrax has been ruled out. A nasal swab might be helpful if the powder was not available for testing.
- If the situation suggests a true potential for cutaneous exposure (e.g., hand contact with powder in an envelope with a threatening note or with an envelope or package that is known to contain anthrax), provide reassurance and counseling about the signs and symptoms of cutaneous anthrax and only start treatment if a suspicious lesion develops. Await results of the testing of the powder.

If you have any questions about the medical management of persons concerned about exposure to anthrax, please call the WCDH at:

(914) 813-5159 Mon - Fri 8:30 AM- 4:30 PM

(914) 813-5000 24 hours/7 days

Nasal Swabs

- There is no screening test available for the detection of anthrax infection in an asymptomatic person. In general, use of nasal swabs to evaluate an anthrax threat is discouraged. Their use in recent investigations in Florida and NYC has been for epidemiological purposes only, in order to determine who was at highest risk of exposure in situations in the setting of a confirmed case. The results have been used to guide further investigation and to determine the source of exposure, not which individuals should be given preventive therapy. The sensitivity and specificity and clinical value of nasal swab testing are unknown.
- The one exception where nasal swabs may be useful is in the situation where there is a highly credible exposure potential and there is no discrete environmental source to test (e.g., the person who got a “blast” of powder in the face) – and the powder was cleaned up before there was any police/FBI involvement and was subsequently irretrievable for laboratory testing.

If our experience with anthrax exposures changes and there is a need to modify this guidance, we will do so. The Centers for Disease Control and Prevention and the New York State Department of Health are currently formulating guidelines based on the recent experiences in New York and Florida.

CDC Recommendations for Post-exposure Prophylaxis (PEP)

	Initial therapy	Duration
Adults (including pregnant women ^{1,2} and immunocompromised)	Ciprofloxacin 500 mg po BID Or Doxycycline 100 mg po BID	60 days
Children ^{1,3}	Ciprofloxacin 15-20 mg/kg po Q12 hrs ⁴ Or Doxycycline ⁵ : >8 yrs and >45 kg: 100 mg po BID >8 yrs and ≤ 45 kg: 2.2 mg/kg po BID ≤ 8 yrs: 2.2 mg/kg po BID	60 days

1. If susceptibility testing indicates susceptibility, as in the recent *B. anthracis* exposures in Florida, therapy should be changed to oral amoxicillin for post-exposure prophylaxis to continue for 60 days.
2. Although tetracyclines are not recommended during pregnancy, their use may be indicated for life-threatening illness. Adverse effects on developing teeth and bones are dose related, therefore, doxycycline might be used for a short course of therapy (7-14 days) prior to the 6th month of gestation. Consult physician after the 6th month of gestation for recommendations.
3. Use of tetracyclines and fluoroquinolones in children has adverse effects. These risks must be weighed carefully against the risk for developing life-threatening disease. If a release of *B. anthracis* is confirmed, children should be treated initially with ciprofloxacin or doxycycline as prophylaxis but therapy should be changed to oral amoxicillin 80 mg/kg of body mass per day divided every 8 hours (not to exceed 500 mg three times daily) as soon as penicillin susceptibility of the organism has been confirmed.
4. Ciprofloxacin dose should not exceed 1 gram/day in children.
5. In 1991, the American Academy of Pediatrics amended their recommendation to allow treatment of young children with tetracyclines for serious infections, such as Rocky Mountain spotted fever, for which doxycycline may be indicated. Doxycycline is preferred for its twice-a-day dosing and low incidence of gastrointestinal side effects.

Fact Sheet for ABC Employees

Two cases of cutaneous anthrax (skin infection) have been diagnosed recently in NYC, including a child that visited ABC. Cutaneous anthrax is a mild form of anthrax infection that is easily treated with antibiotics. Cutaneous anthrax can not spread from one person to another without direct contact with the infected skin or discharges from the infected skin. Cutaneous anthrax does not spread through the air and is not spread by casual contact or by coughing. There is no evidence of inhalational anthrax, the more serious form of anthrax infection of the lungs, in NYC. Health and law enforcement officials are actively investigating the case of cutaneous anthrax at ABC. Because this newest case involves cutaneous anthrax, neither nasal swabbing nor antibiotics are necessary.

What happened at ABC?

Preliminary tests indicate that a child who was present at ABC on September 28, 2001 has cutaneous anthrax (a type of bacteria). The source of the anthrax exposure is still being investigated but it is possible that the child may have been infected while at ABC on September 28.

What is anthrax?

- Anthrax is an infectious disease caused by the bacterium *Bacillus anthracis*, which is capable of forming spores that can travel through the air.
- Anthrax infection can occur in three forms: cutaneous (skin), inhalation (lung), and gastrointestinal (stomach and intestines).
- Cutaneous (skin) infection due to anthrax can occur if the spores are in contact with an area of skin that is not intact, such as a cut or sore. Cutaneous (skin) anthrax is marked by a boil-like lesion that eventually forms an ulcer with a black center. The cutaneous form responds well to antibiotics if treatment is started soon after symptoms appear.
- If people have intentionally been exposed, as in a bioterrorist release, breathing in the spores is the most likely route of exposure that might lead to a serious lung infection (inhalation anthrax). However, the infectious dose for inhalational (lung) anthrax is quite high, and requires exposure to a large number of spores (8,000 – 10,000). Most persons who are exposed to anthrax become ill within one week.

Why am I not being given antibiotics to prevent anthrax infection?

The only cases of anthrax in NYC at this time, including the visitor to ABC, are cutaneous (skin) anthrax infections. Antibiotics are given to people who have skin infections due to anthrax, but are not needed by anyone else in the office. More than two weeks have passed since the last new infection.

Why isn't nasal swabbing being done at ABC?

More than 800 people have had nasal swabbing at NBC (the worksite of the other case of cutaneous anthrax in NYC) and all of the initial swabs have tested negative.

How is the investigation at ABC being conducted?

The NYC Department of Health, with assistance from CDC, is conducting an investigation to determine who was at work at ABC during the time that the child was at ABC, if there are any ABC employees with symptoms possibly due to anthrax, to determine if any suspicious letter or other unusual circumstances occurred, and to determine who had contact with the visitor to ABC. The symptoms of concern are skin infections (an itchy but painless boil that may be accompanied by swelling at the site or in nearby lymph nodes) and severe respiratory illness with fever. Also, if any powder that was received in a letter or package is available, that material will be tested to see if it is anthrax. In addition, the workplace environment will be sampled and tested for anthrax, and law enforcement agencies will investigate how these cases occurred.

I'm concerned about getting anthrax. Why shouldn't I be treated?

If you do not need antibiotics you should not take them. Taking antibiotics unnecessarily can be dangerous. The course of antibiotic treatment to prevent anthrax infection is long (60 days) and many people experience side effects. Although most side effects are mild, severe side effects may occur (such as diarrhea, abdominal symptoms, rash, and allergic reactions) and the use of antibiotics may dangerously interfere with medications you are currently taking. In addition, the inappropriate use of antibiotics may cause the development of antibiotic-resistant strains of common bacteria.

Should I keep a supply of antibiotics on hand, just in case?

No, storing a supply of antibiotics “just in case” can be dangerous. Antibiotics should only be taken under the supervision of a physician who has done an evaluation to minimize the potential for side effects or interaction with other medications.

After the anthrax infections in Florida, many people received antibiotics. Why aren't we doing the same thing here?

Unlike the situation in Florida, the source of exposure, the date of exposure and the people in the building who may have been exposed to anthrax are known. The source of exposure and the persons that may have been exposed in Florida is still unclear, and the investigation by the Federal Bureau of Investigations (FBI) and the Centers for Disease Control and Prevention (CDC) is ongoing.

Is anthrax contagious from person to person?

Inhalation (lung) anthrax is not spread from person to person. Even if someone develops symptoms of inhalation anthrax, they are not contagious to other persons. If someone develops cutaneous (skin) anthrax, the drainage from an open sore presents a low risk of infection to others. The only way cutaneous (skin) anthrax can be transmitted is by direct contact with the drainage from an open sore. Anthrax is not spread from person to person by casual contact, sharing office space, or by coughing and sneezing.

What are the symptoms of anthrax infection?

The symptoms of anthrax depend on where the infection is occurring, but usually develop within 7 days of exposure. Initial symptoms of inhalation (or lung) anthrax may resemble the common cold. After several days, the symptoms may progress to severe breathing difficulties. Cutaneous (or skin) anthrax is typically a boil-like lesion that eventually forms an ulcer with a black center.

Who can I or my health care provider call if we have questions or concerns?

Please ask him or her to call the New York City Department of Health at 877-817-7621.

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

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