IOWA DEPARTMENT OF PUBLIC HEALTH

Iowa Health *focus*

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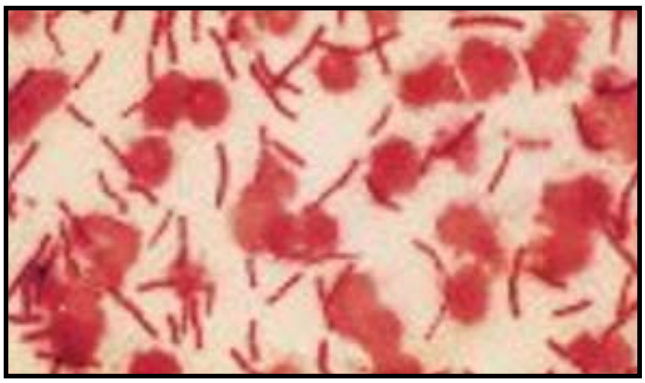
EXTRA!

A special edition for special times

By Director Stephen Gleason, D.O.

We decided to put out a special issue of FOCUS because of intense interest in the subject of bio-terrorism. We are receiving numerous calls and inquiries about bio-terrorism – especially anthrax – at the Iowa Department of Public Health, and we know you at local public health departments, in hospitals, clinics and physicians offices are receiving them as well.

In times like these, the first duty of health-care professionals is preparedness. We discussed our efforts in that area – including public health's part in the state's emergency management plan and creation of our Office of Medical and Public Health Disaster Preparedness – in the regular October issue of FOCUS. Our second, almost as important, job is to calm the fears of our patients and the public. Remember, the goal of terrorists is not just to kill and injure, it's to strike terror. Fear is a weapon, and it is effective to the extent we give in to it. So, reassure, hearten and calm your patients, friends, families and clients. See page 2.



Anthrax up close and personal.

Exposure Response Guidelines

By Cort Lohff, M.D. Assistant State Epidemiologist

In the past several days, many people are reporting contact with suspicious envelopes or packages, and/or contact with "powders" or "substances" within these envelopes or packages. Given the recent events in Florida and New York, many are naturally concerned that they may have been exposed to anthrax.

Currently, law-enforcement agencies and health departments are referring such individuals to health-care providers for evaluation. Following are guidelines for those performing these evaluations. They are based on information from the CDC, the "Consensus Statement on Anthrax as a Biological Weapon: Medical and Public Health Management" (JAMA 1999, Vol 281:1735-45, http://jama.ama-assn.org/) and our current experience with anthrax threats. See page 3.

(Dr. Gleason continued) There's no inconsistency in being both alert and calm. A colleague here at the department compares it to putting on your seat belt before driving. We don't expect a crash, and most of us aren't anxious about driving, but with the seat belt fastened, we're prepared.

A whirlwind of activity has blown around anthrax in the last week. It began with media reports that the anthrax found at a Florida company came from Iowa. That turned out to be true only in the most remote sense: the strain of Florida anthrax *may* have *originated* in Iowa. It's similar to saying that the chocolate bars sold in our cafeteria "came from South America," where chocolate was discovered. Those reports were enough to heighten Iowans' sense of vulnerability about anthrax, so we have held several news conferences and meetings to provide information and allay people's fears.

That same approach can be taken on the local level. Anytime you have a chance to provide information and calm people's fears, either in a group situation or one-to-one, please do so. That will help take the wind out of the terrorists' sails.

Anthrax, by the way, is considered by the experts to be a poor choice for causing mass casualties. It's very hard to make in the necessary quality and quantities and equally hard to distribute effectively. The effects of the limited damage in the cases discovered so far have been exaggerated hundreds of times over because of the public anxiety. Still, anthrax is a threat and as public health and health-care professionals, we can't dismiss it.

As for bio-terrorism in general, we have had meetings on biological, chemical and radiological terrorism for health professionals and are planning others. For specifics on these subjects, please see our web site, www.idph.state.ia.us. Look down the list on the right side of the page and click on "terrorism."

Our message echoes the consistent message from our leaders at the national and state levels: Prepare, but stay calm.

Exposure Response Guidelines

Continued from page 1.

1) **Assess the patient's risk of exposure to anthrax.**
   Factors that can assist you in determining the patient's risk include the ***credibility of the exposure*** and the ***route of potential exposure***. Certain things associated with the package or envelope can assist in determining whether it contained anthrax or not. Law enforcement personnel should make this determination, NOT healthcare providers. Second, the route of exposure should be assessed to determine whether or not the patient would be at risk for cutaneous or inhalation anthrax. To aid in this assessment, the following is provided:

   - **Cutaneous anthrax**: The most plausible form of anthrax, it could be caused by letters or packages. All one needs is spores rubbed into the skin or cuts in the skin that were exposed to the spores. Given its characteristic physical picture and good prognosis when recognized and treated, potential exposures can readily be managed by observation and treatment as indicated.

   - **Inhalation anthrax**: It generally requires a large dose of fine powder - particles 1-5 micron in size - to establish an infection. It is technologically difficult to get anthrax into a form where it can be inhaled. Reaerosolization of particles on clothing and on surfaces into particles of this size in nearly impossible. Thus, visible, settled powders and letters or boxes that are opened and contain powders are usually not serious threats for inhalation anthrax. Thus, the immediate risk to people in these situations is small. Inhalation anthrax would be of concern in the following circumstances:

     - A person gets a face full of powder with contamination of the eyes, nose, and throat; or
     - There is a real concern of aerosolization based on a warning that an air-handling system is contaminated or a warning that a biological agent was released in a public space.

2) Manage the patient based on your assessment of their risk of possible exposure.

   - **If no clear-cut exposure - the "worried well"** (e.g., patient was visiting Florida, now has cold symptoms and is worried about being exposed to anthrax): Provide reassurance and educate about the rarity of infection without known exposure.
   - **If the only potential exposure to a powder/suspicious substance was cutaneous**: Provide advice to the patient on what they need to look for. Typical symptoms will include itching at the site, followed by the development of a lesion that becomes papular, then vesicular, and in 2-6 days develops into a depressed black eschar, which may be surrounded by edema and/or vesicles.

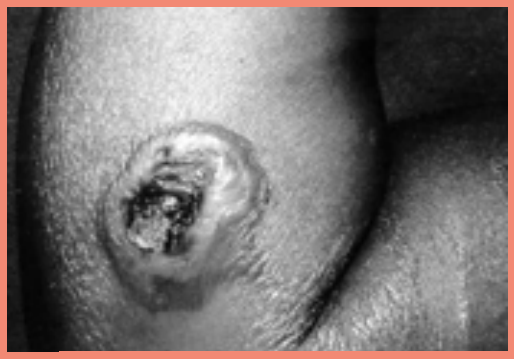
   For both of the above situations, neither nasal swabs nor serological diagnosis are recommended. Although nasal swabs were used by the CDC in recent investigations, they were used only for epidemiological purposes, NOT diagnoses. Therefore, their use to determine anthrax exposure is discouraged.

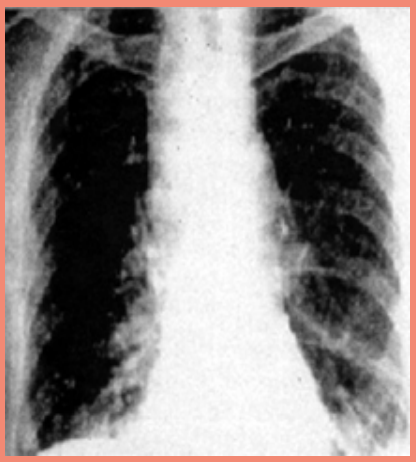
- If the situation suggests a real potential for cutaneous anthrax exposure (e.g., hand contact with powder or a letter in an envelope with a threatening note, etc.), provide assurance and counseling to the patient about the signs and symptoms of cutaneous anthrax and wait to start preventive treatment until cultures of the powder are complete.
- If the situation suggests a real potential for inhalation anthrax exposure (e.g., got a face full of powder from highly suspicious situation), consider starting preventive therapy until exposure ruled out. A nasal swab may be helpful in this situation to determine if the patient was exposed, if the powder or other substance was not available for testing. Again, this is for exposure determination, not diagnosis.

If you feel that the patient needs prophylaxis, please call the Iowa Department of Public Health, Center for Acute Disease Epidemiology at 1-800-362-2736 for further guidance. During business hours, someone will answer directly. After hours, you will be prompted to call the State Patrol, who will in turn, page someone on call.

Please remember that law-enforcement personnel should make the determination of the credibility of the threat of exposure, not health-care providers. Health-care providers may need to consult with the law enforcement personnel handling the case or with the local or state health department when they assess the patient.

Additional information can be found at the department's website, www.idph.state.ia.us. Select terrorism.





At top, Cutaneous anthrax. At right, Inhalation anthrax.

Helping kids cope with a less trustful world

By Edward Schor, M.D.
Medical Director of Family & Community Health

The terrorism of Sept. 11, vividly presented in the media, created upsetting images in the minds of children. The distress that children experienced, reinforced by more recent events, is likely to continue for some time. Children, like adults, are feeling that their lives are not as secure as they had been and they feel less trustful of the world.

Children's reactions are determined by how serious the trauma was that they experienced or observed, by how secure they feel within their home and family, and by their age or development. Young children, five and under, may be fearful and diffusely anxious. They may have a fear of separating from their parents and be more prone to crying or tantrums. Children may return to behaviors they had earlier, thumb-sucking, bed-wetting, and fear of darkness. Young children are especially sensitive to their parents' reactions to these events.

School-age children, and to a lesser degree adolescents, may become withdrawn and avoid discussing the things that upset them. At the extreme, they may not want to leave the house or attend school. They may have trouble paying attention at home and at school, and school work can suffer. This aged child also may have problems sleeping and bodily symptoms such as headaches or stomach aches that have no apparent medical basis. Like younger children, school-age children and youth can become anxious or may exhibit signs of sadness and depression. Preadolescents and adolescents may wonder, "What kind of world am I growing up in? Will I ever feel safe again?"

As they interact with their young children, parents should try to limit the amount of exposure children have to upsetting media coverage. For all children, it has been suggested that parents follow three core principles, the 3-R's of Reassurance, Routine, and Ritual.

Reassurance: Parents should talk about their own feelings, but as calmly as possible. Children's questions should be answered simply and directly, but without going beyond addressing what was asked or beyond the child's developmental capacity to understand. Encourage children to express their feelings, but don't try to force them to talk. Let children know that you will do everything possible to keep them and the other members of their family safe.

Routine: Children gain great comfort from routines. Try to maintain your regular household schedule, keeping mealtime, homework time, and bedtime about the same as usual. Playtime may be especially important. Not only does exercise reduce stress, having the opportunity to explore and express their feelings through play is very therapeutic.

Ritual: Try to counter the memories of traumatic events by providing opportunities to respond actively and positively. Attend a worship service or a community activity that addresses the

traumatic events. Participate in fund-raising or relief efforts, or write to victims' families or rescuers to express thanks.

For more information, visit: http://www.nimh.nih.gov

New "terrorism" link on IDPH web site

Find up-to-date information on the IDPH web site at www.idph.state.ia.us. Look for the "terrorism" link at right on the home page. There are further links to press releases, fact sheets, frequently asked questions, telephone numbers and more.

Use anthrax medication wisely

Provided by the Iowa Pharmacy Association

Due to the recent threat of bioterrorism, many people have started to obtain the medication Cipro (ciprofloxacin) in case of an anthrax exposure. Some people are obtaining this medication through sources that bypass the normal prescriber/patient relationship.

Cipro should not be taken without a health-care provider's supervision, and should not be obtained from anyone but a health-care professional. Cipro has many side effects, including common reactions such as nausea, vomiting, diarrhea, abdominal pain, headache, rash, and restlessness. It also has some less common but severe adverse reactions such as seizures, allergic reactions, and tendon rupture. In addition, extensive use of Cipro can lead to increased antibiotic-resistant bacteria.

According to the CDC and the Bayer Corp, the manufacturer, Cipro should be taken as 400mg IV q12 hours or 500mg po bid for 60 days for Anthrax exposure. Many web sites offer Cipro as a 3- or 7-day supply. This leads to the belief that people who are obtaining this medication from these sites are probably not going take it for the recommended length of time; therefore, it will be ineffective as a prophylaxis treatment.

There are many drug interactions with Cipro. Below is a list of these medications. Some are potentially severe and underscore the need for supervision of a health-care provider.

Antacids – When taken 2 hours before or 6 hours after, they may decrease Cipro's efficacy due to decreased absorption.

Calcium salts – When taken 2 hours before or 6 hours after, they may decrease Cipro's efficacy due to decreased absorption.

Cyclosporine – May increase cyclosporine levels leading to a risk of toxicity; may also cause a transient increase in serum creatinine levels.

Didanosine – When taken 2 hours before or 6 hours after, it may decrease Cipro's efficacy due to decreased absorption.

Glyburide – May increase risk of hypoglycemia.

Glyburide/metformin – May increase risk of hypoglycemia iron salts. When taken 2 hours before or 6 hours after, they may decrease Cipro's efficacy due to decreased absorption.

NSAIDs – May increase risk of CNS stimulation and seizures.

Oral contraceptives – Ciprofloxacin may decrease the effectiveness of oral contraceptives.

Phenytoin – May increase or decrease phenytoin levels by altering the hepatic metabolism of phenytoin.

Probenecid - May increase quinolone levels leading to a risk of toxicity due to a decrease in renal excretion.

Sucralfate – When taken 2 hours before or 6 hours after, it may decrease Cipro's efficacy due to decreased absorption.

Theophylline – May increase theophylline levels by elevating serum concentrations and prolonging the elimination half-life leading to a risk of toxicity by inhibiting hepatic metabolism.

Warfarin – Increased risk of bleeding and increased INR due to inhibition of hepatic metabolism and altered vitamin K production by the gut flora.

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Send suggestions for future articles, letters to the editor, and upcoming events, or add names to the mailing list, by e-mailing us at kberg@idph.state.ia.us