



Anthrax

USNH Okinawa

What is Anthrax?

- Anthrax is a infection caused by a bacteria *Bacillus anthracis*
- Naturally occurring disease
 - throughout the world
 - around for thousands of years
 - primarily in herbivores/domestic livestock
 - spores live in the soil
 - very resistant to harsh conditions

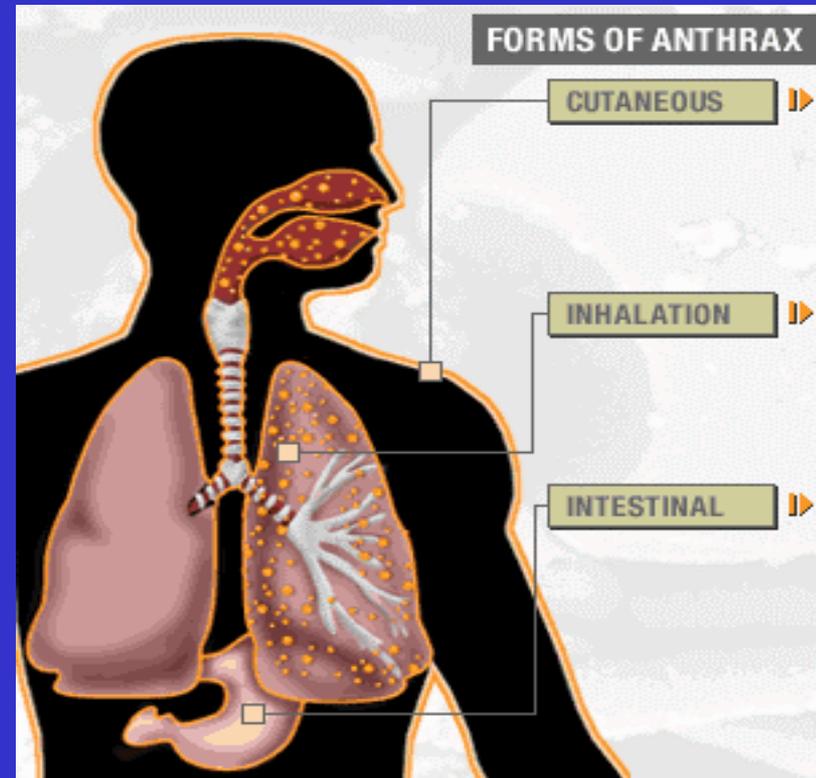


TRANSMISSION

- Natural Setting-
 - domestic livestock get anthrax
 - transmitted to humans either directly from animals or from contaminated by-products (meat, wool, hides, etc.)
 - high risk professions: sheep shearers, wool sorters, veterinarians, slaughterhouse workers, importers of leather/hides

TRANSMISSION

- Bioterrorist Setting
 - Depends on mode of exposure
 - Not all of those exposed get infected
 - CUTANEOUS
 - GASTROINTESTINAL
 - RESPIRATORY
- NOT CONTAGIOUS!



How do you know if you've been exposed?

- Very difficult to create a mechanism to spread anthrax in the air, requires sophisticated technology
- Consequently, the most likely scenario involves a contaminated package
 - resembles fine, white powder (refined) or brown clumps or granules (impure)

EPIDEMIOLOGY

- Only 22 cases to date:
 - 12 cutaneous (0% fatality)
 - 11 respiratory (45% fatality)
 - average age 59 yrs (43-94 yrs)
- Only in “high-risk” professions
 - mail handlers, congress, media
- No cases of anthrax or positive packages here on Okinawa

Anthrax Symptoms

- CUTANEOUS-- raised itchy bump progressing to an ulcer with a black scab
- GASTROINTESTINAL-- nausea, vomiting, loss of appetite, progressing to abdominal pain, bloody diarrhea
- RESPIRATORY-- flu-like symptoms progressing to severe shortness of breath

Common Flu-like Symptoms

Anthrax

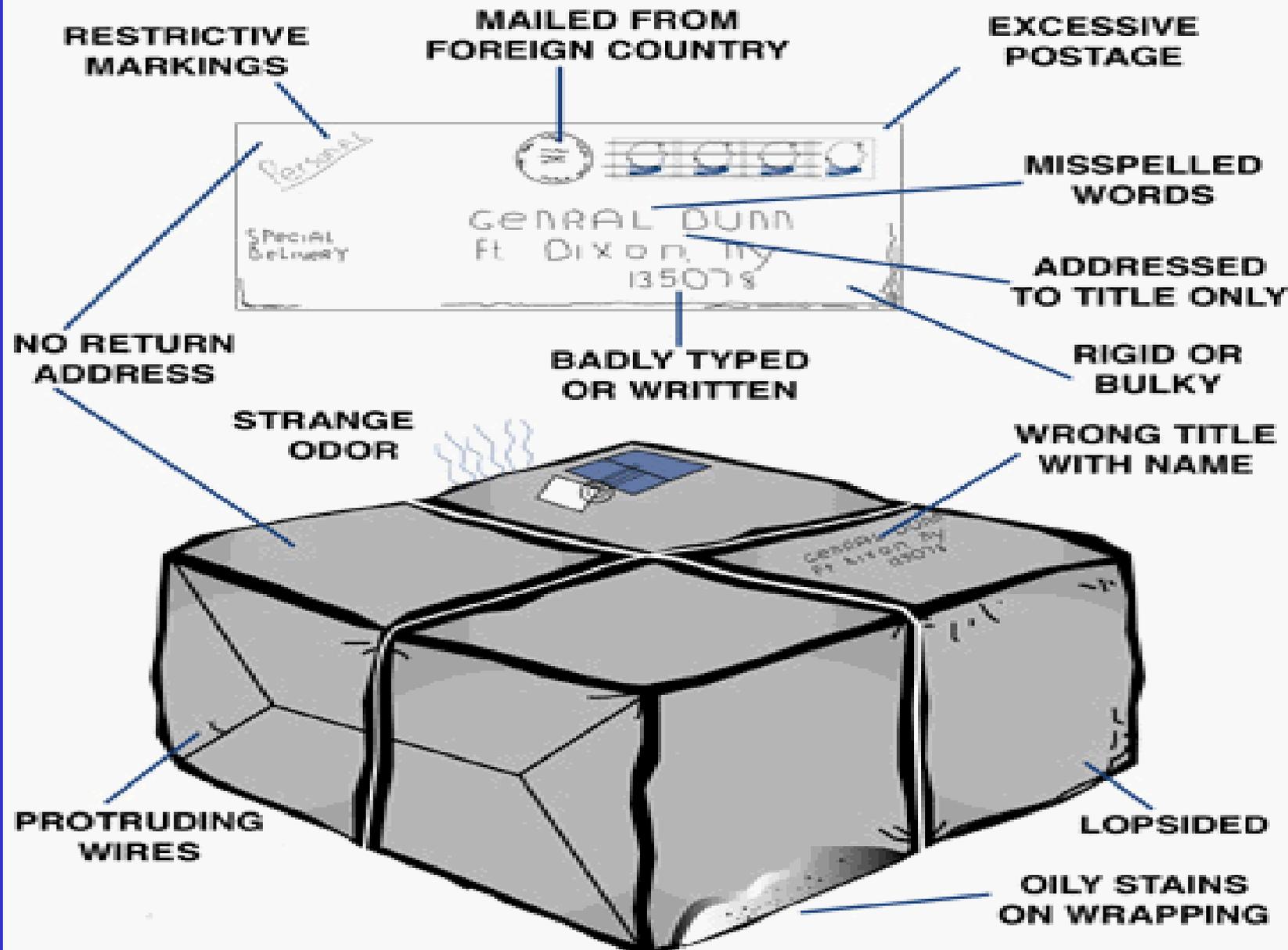
- Fever
- Fatigue
- Muscle aches
- Cough (no phlegm)
- Mild chest discomfort
- NOT Contagious!

Not Anthrax (Flu)

- Sore throat
- Nasal Congestion
- Runny Nose
- Cough (w/ phlegm)
- Contagious

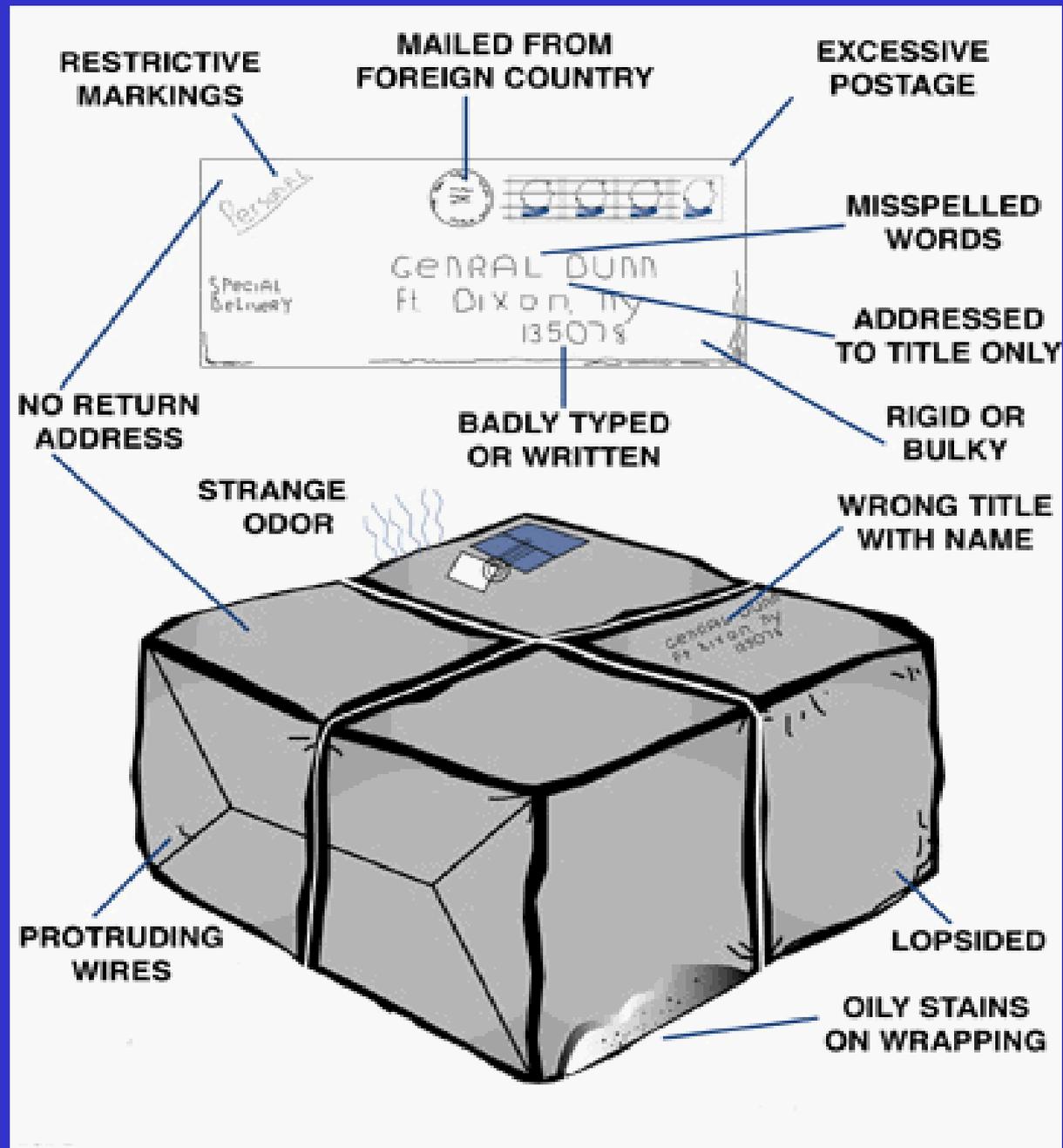
PROPHYLAXIS

- Antibiotics given in the setting of exposure, to PREVENT infection (60 days)
- Do not take any “left over” antibiotics
- Do not seek antibiotics to have “just in case”
 - 1) May not be the right medication
 - 2) May cause a shortage for others
 - 3) Masks the normal symptoms & progression
 - 4) Will cause drug resistance



What to do if you receive a suspicious package

- Treat as if a bomb
- Don't open it
- Keep others away
- Wash your hands
- Call 911



What happens after 911 is called?

PMO arrives on scene

- establishes perimeter, restricts access, communicates with MCB HQ

Fire Department arrives on scene

- takes charge, assesses situation, initiates cascade

EMT's respond

- standing by to support staff and public

911 Response Team

Explosive Ordinance Detail (EOD)

- ensures no bombs, tests substance

MCB Environmental

- responsible for decontamination of public/staff

NCIS

- secures crime scene and evidence

USNH Medical

- provides medical logistical support

Medical Assistance

- Anthrax exposure is not a medical emergency
- All patients will be evaluated/treated
- We ask that NO ONE report directly to the ER if they think they've been contaminated
- All individuals with known (or high probability) Anthrax exposure will be evaluated by Internal Medicine staff physicians

PROTECTION

- Don't panic, but be vigilant
- Take care of yourself
 - eat right, sleep well, exercise regularly
 - don't smoke, don't drink, don't worry
 - engage in stress reduction activities
 - spend time with friends & family
- *Most effective prevention against any infection is to maintain a strong and healthy immune system!*

REMEMBER . . .

- Must be exposed to anthrax spores
- To cause disease, the spores must enter the skin, be swallowed, or inhaled
- Disease can be prevented by early treatment with antibiotics
- Anthrax is NOT spread from person to person

USNH Okinawa Website

For Information on Anthrax and other
Bioterrorist Agents

<http://www.oki.med.navy.mil/>



QUESTIONSPPPP