Bioterrorism: A Deliberate Public Health Disaster
Department of Community Health Sciences
CHS 256
Winter Quarter, 2003
Tuesdays 3-5pm
CHS 41-235

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Course Objective: To recognize the public health significance of biological terrorist events and to identify strategies that public health professionals can use to prevent, detect, and intervene in bioterrorist events in order to prevent morbidity and mortality in the population.

General Texts/Readings:


THE PUBLIC HEALTH RESPONSE TO BIOLOGICAL AND CHEMICAL TERRORISM: INTERIM PLANNING GUIDANCE FOR STATE PUBLIC HEALTH OFFICIALS. Available at: http://www.bt.cdc.gov/Documents/Planning/PlanningGuidance.PDF

Reader available at COURSE READER MATERIALS on Westwood Blvd.

Assignments and Exams:

Take-Home Midterm examination, covering the biomedical and epidemiologic aspects of detecting a bioterrorism event. This take-home exam will be due at session 5 and will be worth 40% of the final class grade.

Final paper requiring development of a plan for a small to mid-size community for a possible bioterrorism event. The final paper is to be 10-12 pages double spaced. It is due at the scheduled final exam period for the class and is worth 60% toward the final class grade.
Session 1: January 6

Topic: Bioterrorism - Risks and Realities

- What is bioterrorism?
- Why use biological agents?
- Biological versus other types of agents
- Intentional versus non-intentional events
- Who would use bioweapons and for what purpose?
- History of bioterrorism/biowarfare
- The public health context
- Primary and secondary prevention

Objective(s):

Possess a clear understanding of what bioterrorism is and why a concern exists over the potential use of biological agents. Recognize the public health context of bioterrorism.

Required Readings:


Session 2: January 13

Topic: Likely agents of bioterrorism and methods of dispersal

- Bacterial agents
- Viral agents
- Biological toxins

Objectives: Recognize the likely agents of bioterrorism, their natural history and probable method(s) of dispersal.

Required Readings:


Session 3: January 20

Topic: The Anthrax Outbreak of 2001: A Lesson in Bioterrorism Response

Objectives: Understand the intentional outbreak of Anthrax and the response by the CDC, local public health agencies, FBI and other agencies.

Required Readings:

Session 4: January 27

Topic: Recognizing bioterrorism (Part 1).
- Public health surveillance principles
- Surveillance systems

Objectives: Understand the surveillance clues to recognizing a possible bioterrorist event. Recognize the importance of augmented surveillance systems and development of an effective alert network.

Required Readings:
Pavlin J. Epidemiology of bioterrorism. Emerging Infectious Diseases 1999; 5: 528-530
Session 5: February 3

Topic: Recognizing bioterrorism (Part 2).
- Laboratory surveillance principles
- Laboratory systems
- Environmental monitoring

Objectives: Define the role of laboratories in the early detection and mitigation of a bioterrorist event.

Required Readings:

Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response. MMWR, April 21,2000 Vol 49, No. RR-4.


Session 6: February 10

Topic: Combating bioterrorism
- Preparation: public health systems, vaccines, biologicals
- Deterrence: policy, intelligence, military

Objectives: Recognize the role of existing and augmented public health systems (and other agencies) necessary to prepare for and combat bioterrorism.

Required Readings:


CDC, Executive Summary for CDC Interim Smallpox Response Plan and Guidelines.


Session 7: February 17

Topic: Responding to bioterrorism (Part 2)
- Role of the media

Objective: To understand the relationship between public health responders and the media in a bioterrorism event. To understand key skills necessary to communicate with the media during a disaster situation such as a bioterrorism event.

Readings:


Session 8: February 24

Topic: Potential for psychological trauma

Objective: To identify the potential for psychological distress and trauma as a result of bioterrorist attacks and to understand the process and potential for prevention and treatment of such trauma.

Readings:


Session 9: March 3

Topic: Responding to a bioterrorist event (Part 2).

- Applying lessons from natural disasters
- Public health role
- Role of primary/emergency care
- Interagency communication/coordination

Objectives: Understand the public health, medical community and other agencies’ roles in responding to a bioterrorist event.

Required Readings:


THE PUBLIC HEALTH RESPONSE TO BIOLOGICAL AND CHEMICAL TERRORISM: INTERIM PLANNING GUIDANCE FOR STATE PUBLIC HEALTH OFFICIALS. Available at: http://www.bt.cdc.gov/Documents/Planning/PlanningGuidance.PDF

Session 10: March 10

Topic: Bioterrorism Scenarios

- anthrax
- smallpox
- other

Objective: Be able to work through likely scenarios of a bioterrorist act focusing on the public health professionals’ role in recognition and response.

Required Readings:

No readings this week. Be prepared to participate in a tabletop exercise.