

PLAGUES & BIOTERRORISM

- I. HISTORY AND BACKGROUND
 - A. FIRST KNOWN (BUT UNRECORDED) CASES OF BIOTERRORISM
 - 1. 1346 - KAFFA ON THE BLACK SEA
YANIBERG A KAHN OF THE GOLDEN HOARD
CATAPULTED DEAD PLAGUE VICTIMS OVER
THE WALLS OF KAFFA (HELD BY THE GENOESE)
 - 2. 1763 - MASSACHUSETTS
GENERAL JEFFREY AMHERST ORDERED BLANKETS
FROM SMALLPOX VICTIMS BE GIVEN TO NATIVE
AMERICANS (FRENCH-INDIAN WAR)
 - B. THE PLAGUES OF THE NEW WORLD
COLUMBUS & THE TAINOS, CORTEZ & THE AZTECS,
PIZZARO AND THE INCAS
 - C. THE 20TH CENTURY
 - 1. ACTUAL USE OF "WEAPONIZED" AGENTS - ??
 - 2. WORK IN THE USA AND THE USSR (AND ELSEWHERE)
 - a. FORT DETRICK, MD - WEAPONIZING AGENTS
 - b. THE ANTHRAX INCIDENT-SVERDLOVSK (1979)
 - D. 2001 INCIDENT IN USA (23 anthrax cases: 11 inhalation,
12 cutaneous; 5 fatalities - most were postal workers)
- II. ANTHRAX
 - A. BACILLUS ANTHRACIS - AEROBIC SPORE-FORMER
 - 1. TWO VIRULENCE FACTORS - TOXIN AND CAPSULE
 - 2. SPORES ARE RESISTANT TO HEAT AND DRYING
 - 3. THREE TYPES OF DISEASE (INHALATION,
CUTANEOUS AND INGESTION)
 - 4. A ZONOTIC DISEASE OF UNGULATES
 - B. EASILY WEAPONIZED AND DISPERSED
 - C. HARD TO DIAGNOSE AND TREAT
- III. SMALLPOX
 - A. SMALLPOX (VARIOLA) VIRUS
 - 1. LARGE "COMPLEX" VIRUS OF HUMANS
 - 2. CAUSES DISEASE WITH 100% MORBIDITY & 40%
MORTALITY
 - 3. CAN BE PREVENTED BY VACCINATION
 - B. CAN BE DISPERSED - VIRUS IS RELATIVELY STABLE
 - C. IMMUNIZATION AT 0% IN USA (BUT AVAILABLE)
- IV. TULAREMIA (RABBIT FEVER, DEER-FLY FEVER)
 - A. FRANCISELLA TULARENSIS - A GRAM NEGATIVE ROD
 - 1. TRANSMITTED BY AEROSOLS, ANIMALS, AND
ARTHROPODS (USUALLY A ZONOTIC DISEASE)
 - 2. CAUSES CONJUNCTIVITIS, ORAL ULCERS AND
PHARYNGITIS (SEVERE WITH SYSTEMIC SYMPTOMS)
 - B. CAN BE AEROSOLIZED AND DISPERSED
- V. OTHERS
 - A. BOTULISM TOXIN
 - B. HEMORRHAGIC FEVER VIRUSES
 - C. BRUCELLOSIS