

# PLAGUE

**ALL SUSPECT CASES OF PLAGUE MUST BE REPORTED IMMEDIATELY TO THE SANTA CRUZ COUNTY HEALTH SERVICES AGENCY, DISEASE CONTROL:**

During business hours: 831-454-4114

After hours (County Communications): 831-471-1183

## **Epidemiology:**

- Highly infectious after aerosolization
- Person-to-person and animal-to-human transmission can occur with pneumonic plague via respiratory droplet

## **Clinical:**

- Incubation period is 1-3 days (ranges up to 7 days)
- Aerosolization would most likely result in pneumonic plague
- Pneumonic plague presents with acute onset of high fevers, chills, headache, malaise and a productive cough, that is initially watery before becoming bloody

## **Laboratory Diagnosis:**

- Bacterial cultures (blood, sputum, or lymph node aspirate specimens) should be handled in a Biosafety Level 2 facility
- Wright, Giemsa, or Wayson stain shows gram negative coccobacilli with bipolar “safety-pin” appearance
- Organism grows slowly (48 hrs for observable growth) on standard blood and MacConkey agar
- Immunofluorescent staining for capsule (F1 antigen) is diagnostic

## **Patient Isolation:**

- Strict respiratory isolation with droplet precautions (gown, gloves, and eye protection) until the patient has received at least 48 hours of antibiotic therapy and shows clinical improvement

## **Treatment:**

- Streptomycin (1 g IM bid) or gentamicin (5 mg/kg IM or IV qd) are the preferred antibiotics
- Tetracyclines or fluoroquinolones are alternative choices
- Co-trimoxazole is recommended for pregnant women and children between the ages of 2 months and 8 years
- Chloramphenicol should be used for plague meningitis

## **Prophylaxis:**

- Antibiotic prophylaxis is recommended for all persons exposed to the aerosol or persons in close physical contact with a confirmed case
- Tetracyclines or fluoroquinolones are recommended for 7 days from last exposure to a case