



Plague (*Yersinia pestis*)
Information for Health Care Providers

Cause	<p><i>Yersinia pestis</i></p> <ul style="list-style-type: none"> ▪ Aerobic, non-spore forming, non-motile, plump, gram-negative bacillus (rod shaped), with possible bi-polar staining 	
Systems Affected	<ul style="list-style-type: none"> ▪ Respiratory tract or inhalation (pneumonic form) ▪ Lymphatic (bubonic form) ▪ Septicemic form affects entire body 	
Transmission	<ul style="list-style-type: none"> ▪ Contact with infected animals or their fleas ▪ Handling of infected tissues ▪ Inhalation of aerosols containing <i>Yersinia pestis</i> ▪ Person-to-person transmission of pneumonic form 	
Reporting	<ul style="list-style-type: none"> ▪ Immediately report any suspected or confirmed case of plague to your local or state health department ▪ Confirmed cases must be reported to the local health department within 24 hours 	
Incubation Period	<ul style="list-style-type: none"> ▪ 1-6 days, usually 2-3 days 	
Typical Signs/Symptoms	<ul style="list-style-type: none"> ▪ Pneumonic: Fever, headache, myalgia, malaise, rapidly developing pneumonia, hemoptysis, dyspnea, shock, death ▪ Bubonic: Develop buboes, fever, headache, chills, may develop secondary pneumonic form if untreated ▪ Septicemic: No bubo present, fever, chills, prostration, abdominal pain, shock, disseminated intravascular coagulation, may develop secondary pneumonic form if untreated 	
Differential Diagnosis	<ul style="list-style-type: none"> ▪ Tularemia ▪ Cat Scratch Fever ▪ Meningococemia 	
Laboratory	<p>Specimens</p> <ul style="list-style-type: none"> ▪ Obtain specimens appropriate to the system affected: <ul style="list-style-type: none"> ○ Blood (essential) ○ Sputum ○ Lymph node or bubo aspirates ○ Nasal swab ○ Cerebral spinal fluid (CSF) 	<p>Clues to diagnosis</p> <ul style="list-style-type: none"> ▪ Gram-negative bacillus visible in specimen or in culture ▪ Bi-polar staining visible in Gram, Wayson or Giemsa stains ▪ Elevated serum antibody titer to <i>Y. pestis</i> fraction 1 ▪ Detection of F1 antigen by fluorescent assay

<p>Treatment</p>	<p>Adults</p> <ul style="list-style-type: none"> ▪ Streptomycin: 1Gm IM bid x 10 days ▪ Gentamicin: 5mg/kg, IM/IVV qid x 10 days 	<p>Pediatric</p> <ul style="list-style-type: none"> ▪ Streptomycin: 15mg/kg, IM bid, max of 2Gm/d ▪ Gentamicin: 2.5mg/kg, IM/IV tid, bid for preemies and neonates<1 wk of age 	<p>Pregnant Women</p> <ul style="list-style-type: none"> ▪ Gentamicin: 5mg/kg, IM/IV daily or 2mg/kg loading dose followed by 1.7mg/kg IM/IV tid
<p>Precautions</p>	<p>Pneumonic plague patient</p> <ul style="list-style-type: none"> ▪ Droplet precautions until treated for 3 days then, ▪ Standard contact precautions 		