



Merlin disease code: 02100 Plague

CONTACT BUREAU OF EPIDEMIOLOGY



Isolates or specimens for all cases must be sent to the Bureau of Public Health Laboratories

[Paper case report form](#) required

No Merlin extended data

This condition has been identified as a potential bioterrorism agent by the CDC.

Background

Plague is caused by *Yersinia pestis*, which is transmitted to humans by fleas or by direct exposure to infected tissues or respiratory droplets. The disease is characterized by fever, chills, headache, malaise, prostration, and leukocytosis.

The disease manifests in one or more of the following principal clinical forms:

- Regional lymphadenitis (bubonic plague)
- Septicemia without an evident bubo (septicemic plague)
- Plague pneumonia, resulting from hematogenous spread in bubonic or septicemic cases (secondary pneumonic plague) or inhalation of infectious droplets (primary pneumonic plague)
- Pharyngitis and cervical lymphadenitis resulting from exposure to larger infectious droplets or ingestion of infected tissues (pharyngeal plague)

Clinical criteria for case classification

Confirmatory:

An illness with acute onset of fever as reported by the patient or health care provider, with or without one or more of the following specific clinical manifestations:

- Regional lymphadenitis (bubonic plague),
- **Or** septicemia (septicemic plague),
- **Or** pneumonia (pneumonic plague),
- **Or** pharyngitis with cervical lymphadenitis (pharyngeal plague).

Presumptive:

Confirmatory criteria in the absence of a more likely diagnosis.

Supportive:

No clinical information available (no medical record or patient interview).

Laboratory criteria for case classification

Confirmatory:

Either of the following:

- Both of the following:
 - Isolation of *Y. pestis* from a clinical specimen
 - **And** secondary assay validating culture identification (e.g., bacteriophage lysis assay, direct fluorescent antibody assay [DFA]) performed by the CDC or Laboratory Response Network
- **Or** fourfold or greater change in serum antibody titer to *Y. pestis* fraction 1 (F1) antigen.

Plague (Continued)

Presumptive:

Either of the following:

- Both of the following:
 - Elevated serum antibody titer to *Y. pestis* F1 antigen
 - **And** no history of plague vaccination
- **Or** detection of *Y. pestis* DNA or antigens, including F1 antigen, in a clinical specimen by DFA, immunohistochemical assay (IHC), or polymerase chain reaction (PCR).

Epidemiological criteria for case classification

One or more of the following:

- A person who is epidemiologically linked to a person or animals with confirmatory laboratory evidence within 2 weeks before illness onset;
- **Or** a person with close contact with a confirmed pneumonic plague case, including but not limited to presence within two meters of a person with active cough due to pneumonic plague;
- **Or** a person who traveled within 2 weeks before illness onset to a geographically-localized area with confirmed plague epizootic activity in fleas or animals as determined by the relevant local authorities.

Case classification

Confirmed:

Either of the following:

- A person with confirmatory clinical criteria and confirmatory laboratory criteria
- **Or** a person with confirmatory clinical criteria, presumptive laboratory criteria, and epidemiological criteria.

Probable:

A person with presumptive clinical criteria and presumptive laboratory criteria in the absence of a more likely diagnosis.

Suspect:

Either of the following:

- A person with confirmatory clinical criteria and epidemiological criteria
- **Or** a person with confirmatory or presumptive laboratory criteria but no clinical information available.

Criteria to distinguish a new case from previous reports

Serial or subsequent plague infections in a person should only be counted if there is a new epidemiologically-compatible exposure and new onset of symptoms.