

Merlin disease code: 10090 Leptospirosis

[Paper case report form](#) required  
No Merlin extended data

## Clinical criteria for case classification

Both of the following:

- Fever within the past two weeks
- **And** either of the following:
  - Two or more of the following:
    - Myalgia,
    - **Or** headache,
    - **Or** jaundice,
    - **Or** conjunctival suffusion without purulent discharge,
    - **Or** rash (i.e., maculopapular or petechial)
  - **Or** one or more of the following:
    - Aseptic meningitis,
    - **Or** gastrointestinal symptoms (e.g., abdominal pain, nausea, vomiting, diarrhea),
    - **Or** pulmonary complications (e.g., cough, breathlessness, hemoptysis),
    - **Or** cardiac arrhythmias,
    - **Or** electrocardiograph abnormalities,
    - **Or** renal insufficiency (e.g., anuria, oliguria),
    - **Or** hemorrhage (e.g., intestinal, pulmonary, hematuria, hematemesis),
    - **Or** jaundice with acute renal failure.

Symptoms may be biphasic. Clinical presentation may range from very mild to fatal illness and in early stages can be confused with influenza or other more common febrile illnesses.

## Laboratory criteria for case classification

### Confirmatory:

One or more of the following:

- Isolation of *Leptospira* from a clinical specimen,
- **Or** fourfold or greater increase in *Leptospira* agglutination titer between acute- and convalescent-phase serum specimens,
- **Or** detection of *Leptospira* in a clinical specimen by direct immunofluorescence assay (DFA),
- **Or** *Leptospira* agglutination titer of  $\geq 800$  by microscopic agglutination test (MAT) in one or more serum specimens,
- **Or** detection of pathogenic *Leptospira* DNA (e.g., by polymerase chain reaction [PCR]) from a clinical specimen.

### Presumptive:

One or more of the following:

- *Leptospira* MAT titer of  $\geq 200$  but  $< 800$  from one or more serum specimens,
- **Or** detection of anti-*Leptospira* antibodies in a clinical specimen by indirect immunofluorescence assay (IFA),
- **Or** demonstration of *Leptospira* in a clinical specimen by darkfield microscopy,
- **Or** detection of IgM antibodies against *Leptospira* in an acute phase serum specimen.

## Epidemiological criteria for case classification

Not applicable.

## Case classification

### Confirmed:

A person with confirmatory laboratory criteria.

### Probable:

Either of the following:

- A clinically compatible illness in a person with presumptive laboratory criteria
- **Or** a clinically compatible illness in a person who is epidemiologically linked to a confirmed or probable case or exposure event (adventure race, triathlon, flooding, infected animal, etc. with associated laboratory-confirmed cases).

## Criteria to distinguish a new case from previous reports

Not applicable.

## Comments

Leptospirosis is shed in the urine of many wild and domestic animals including rodents, pigs, raccoons, deer, and dogs. Animal reservoirs are often healthy appearing. The organism can survive for extended periods in moist conditions and water and is transmitted through ingestion or contact with cuts. Exposure risks include contact with contaminated water or infected animals (especially rodents) in the month prior to symptom onset. Laboratory testing should be routed through the Bureau of Public Health Laboratories after consultation with a central office environmental epidemiologist.