

# Leptospirosis

Merlin reporting code = 10090  
 Case report form (CRF): [Leptospirosis CRF](#)  
**PAPER CRF REQUIRED**

## Clinical description

An illness characterized by fever within the past two weeks, AND

- At least **two** of the following: myalgia, headache, jaundice, conjunctival suffusion without purulent discharge, or rash (i.e., maculopapular or petechial)

OR

- At least **one** of the following: aseptic meningitis, GI symptoms (e.g., abdominal pain, nausea, vomiting, diarrhea), pulmonary complications (e.g., cough, breathlessness, hemoptysis), cardiac arrhythmias, ECG abnormalities, renal insufficiency (e.g., anuria, oliguria), 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:

- Isolation of *Leptospira* from a clinical specimen,

OR

- Fourfold or greater increase in *Leptospira* agglutination titer between acute- and convalescent-phase serum specimens,

OR

- Demonstration of *Leptospira* in a clinical specimen by direct immunofluorescence,

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:

- *Leptospira* MAT titer of  $\geq 200$  but  $< 800$  from one or more serum specimens,

OR

- Demonstration of anti-*Leptospira* antibodies in a clinical specimen by indirect immunofluorescence,

OR

- Demonstration of *Leptospira* in a clinical specimen by darkfield microscopy,

OR

- Detection of IgM antibodies against *Leptospira* in an acute phase serum specimen.

## Case classification

### Confirmed:

A person with confirmatory laboratory evidence.

### Probable:

- A clinically compatible illness in a person with presumptive laboratory evidence

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).

### **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.

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