

Leptospirosis| Case Management

Key Facts:

- Zoonotic disease with epidemic potential, especially after a heavy rainfall, caused by various species and serovars of a bacterium called *Leptospira*.
- Leptospirosis may present with a wide variety of clinical manifestations, from a mild illness that may progress to a serious and sometimes fatal disease.
- Incubation period: 5-14 days, with a range of 2-30 days.

Transmission	Humans usually acquire leptospirosis through: • Contact with water or soil containing urine or body fluids from infected animals, especially after hurricanes, flooding, or heavy rainfall. • Directly touching body fluids from an infected animal. • Eating food or drinking water contaminated by the urine of an infected animal. Human-to-human transmission occurs very rarely.
Clinical features	The disease typically presents in four broad clinical categories: • A mild, influenza-like illness • Weil's syndrome characterized by jaundice, renal failure, haemorrhage and myocarditis with arrhythmias • Meningitis/meningoencephalitis • Pulmonary haemorrhage with respiratory failure The most common clinical features of leptospirosis include fever, myalgia (especially affecting the legs), headache, conjunctival suffusion which is a quite specific symptom.
Diagnosis	Primarily based on clinical features in a patient with risk factors (contact with contaminated water, or farming, or contact with rodents or dogs). • Acute phase – PCR is the gold standard. • Acute and convalescent – Microscopic Agglutination Test (MAT) serology (if available) • RDT for leptospirosis (not positive until 5-7 days).
Treatment	Antibiotics can be beneficial in severe disease, potentially preventing progression if started early. Mild disease is self-limited. Suggested regimens (oral dosing for mild disease, parenteral for moderate to severe disease) for 7 days treatment include: • Doxycycline 100 mg orally, twice daily (recommended in regions where rickettsial diseases such as scrub typhus are common); or • Ceftriaxone 2 g IV once daily; or • Cefotaxime 1 g IV every 6 hours; or • Benzylpenicillin 1.5 million units IV every 6 hours.
Prevention	• Don't swim or wade in water that might be contaminated with animal urine, especially after hurricanes, floods, or heavy rainfall. • Keep rodents away by putting food, water, and trash in closed containers, and trapping rodents. • Avoid contact with animals that may be infected. • Cover your cuts or scratches with waterproof bandages. • Wear waterproof protective clothing, shoes or boots near floodwater or other water or soil that may be contaminated with animal urine. For people who get exposed to infected animals as a result of their occupation (veterinarians, dairy workers, butcher, etc.) • Wash hands frequently. • Use personal protective equipment (gloves, footwear, eye protection). • Clean and disinfect surfaces and equipment. • Vaccinate animals against leptospirosis, and isolate sick animals. • Control the rodent population around your work area.

*All cases should be reported in SORMAS platform

References:

1. World Health Organization, Regional Office for South-East Asia. [Leptospirosis](#). In: SEARO IMAI District Clinician Manual: Hospital Care for Adolescents and Adults Guidelines for the Management of Common Illnesses and Notifiable Diseases. Vol. 1. New Delhi: WHO Regional Office for South-East Asia; 2021 Jan.
2. Centers for Disease Control and Prevention. About leptospirosis [\[Internet\]](#). Atlanta (GA): Centers for Disease Control and Prevention; [cited 2026 Sep 16].
3. Centers for Disease Control and Prevention. Preventing leptospirosis after hurricanes or flooding [\[Internet\]](#). Atlanta (GA): Centers for Disease Control and Prevention; [cited 2026 Sep 16].
4. Pan American Health Organization. Leptospirosis [\[Internet\]](#). Washington (DC): Pan American Health Organization; [cited 2026 Sep 16].
5. Wagenaar JFP, Goris MGA. [Leptospirosis](#). In: Longo DL, Fauci AS, Kasper DL, Hauser SL, Jameson JL, Loscalzo J, et al., editors. Harrison's Principles of Internal Medicine. 22nd ed. New York: McGraw Hill; 2025. p. 1417-21.
6. Day NPJ. Leptospirosis: epidemiology, microbiology, clinical manifestations, and diagnosis [\[Internet\]](#). UpToDate; 2025 Jun [cited 2026 Sep 16].



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