Differentiating Dengue from Other Acute Febrile Illnesses

Event	Leptospirosis	Malaria	Typhoid Fever
Disease and Agent	*Leptospira spp.*	*Plasmodium spp.*	• *Salmonella* serotype Typhi • *Salmonella* Paratyphi A, B, C
Transmission	Contact with animal (usually rat, dog, cattle, pig) urine, contaminated water or soil	Mosquito bite	Consumed water or food contaminated with human feces from an acutely ill or convalescent patient or a silent chronic carrier
Incubation	2–30 days	As short as 7 days but commonly 2–4 weeks	7–42 days
Differentiating Features	Jaundice, conjunctival suffusion, acute renal failure	Recurrent fevers can occur	Red spots (trunk). Can be difficult to see, particularly in persons of color
Complications	• Renal failure • Pulmonary bleeding • Hepatic dysfunction • Meningitis	• Cerebral malaria • ARDS • Renal failure • Hemolytic anemia	• Intestinal perforation • Shock • Neurologic disease
Diagnosis	• Serology tests (IgM, paired MAT) • Culture blood, CSF, and urine	• Tick and thin blood smear • Rapid dx test or PCR[1]	• Culture blood, BM, and stool • Serology test (paired) • Rapid test is useful for outbreak confirmation
Treatment (adults and children of all ages)	Penicillin G IV for severe cases	Drug choice based on where acquired, disease severity, parasite species, and density	Drug choice based on antimicrobial resistance patterns
	Doxycycline po	Doxycycline po	Empiric treatment: Ciprofloxacin po or Ceftriaxone IV or IM

[1]Malaria PCR and rapid diagnostic tests also available. CDC telediagnosis service called DPDx available; send photos of smears to: dpdx@cdc.gov