

ZOONOTIC DISEASE MANAGEMENT GUIDANCE

HAZARD	TRANSMISSION	PREVENTION	SYMPTOMS
Rabies	Inoculation of saliva from the bite of a rabid animal	Preexposure rabies vaccination Postexposure human IG. Education about risks and the need to avoid bites from mammals, especially high-risk rabies reservoir species Consultation with travel health professionals to determine if preexposure vaccination is recommended Prevention rabies after a bite; and knowing how to obtain postexposure prophylaxis (PEP)	Symptoms most commonly develop within several weeks to several months after exposure. Pain and paresthesia at the site of exposure are often the first symptoms of disease. The disease then progresses rapidly from a nonspecific, prodromal phase with fever and vague symptoms to an acute, progressive encephalitis. The neurologic phase may be characterized by anxiety, paresis, paralysis, and other signs of encephalitis; spasms of swallowing muscles can be stimulated by the sight, sound, or perception of water (hydrophobia); and delirium and convulsions can develop, followed rapidly by coma and death. Once clinical signs manifest, patients die quickly in the absence of intensive supportive care.
Crimean-Congo Hemorrhagic fever	Tick bite Touching the body fluids of a person or animal infected with CCHF	Avoid bug bites Use insect repellent Use bed nets Minimize areas of exposed skin	Abrupt onset of fever, muscle pain, headache, diarrhea, vomiting, abdominal pain.
Dengue	Mosquito bite	Avoid bug bites Use insect repellent Use bed net Minimize areas of exposed skin	An estimated 40%–80% of infections are asymptomatic. Symptoms begin abruptly after 5–7 days. Symptomatic infection most commonly presents as a mild to moderate, acute fever, muscle pain, bone pain, rash.
Leptospirosis	The infection route is through abrasions or cuts in the skin, or through the conjunctiva and mucous membranes. Direct contact with urine or reproductive fluids from infected animals, through contact with urine-contaminated water or soil, or by consuming contaminated food or water	Avoid contaminated water and soil Avoid direct contact with urine or other body fluids from rodents and other animals	Most infections are thought to be asymptomatic. More severe illness may present as acute febrile illness with symptoms including headache (can be severe and include retro orbital pain and photophobia), chills, myalgia (characteristically involving the calves and lower back), conjunctival suffusion, nausea, vomiting, diarrhea, abdominal pain, cough, and rarely, a skin rash.
Leishmaniasis	Sand fly bite	Avoid Bug Bites Use insect repellent Use bed net Minimize areas of exposed skin	Characterized by skin lesions (open or closed sores), which typically develop within several weeks or months after exposure.

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Malaria	Transmitted by the bite of an infective female <i>Anopheles</i> mosquito	Chemoprophylaxis: Atovaquone- roguanil, doxycycline, mefloquine, tafenoquine Use insect repellent Use bed nets	7 – 14 days after a bite by infected mosquito. Signs and symptoms vary, most experience fever as the major manifestation. Common associated symptoms include headache, back pain, myalgia, nausea, vomiting, diarrhea, and cough.
Rift Valley fever	Touching blood, body fluids, or tissue of infected livestock Mosquito bite	Avoid contaminated water Use insect repellent Use bed nets Minimize areas of exposed skin	Abrupt onset of fever, muscle pain, headache, diarrhea, vomiting, abdominal pain.
Hantavirus	Breathing in air or accidentally eating food contaminated with the urine, droppings, or saliva of infected rodents Bite from an infected rodent Less commonly, being around someone sick with hantavirus (only occurs with Andes virus)	Avoid creating aerosols while handling rodents and their urine or droppings Avoid sick people	Abrupt onset of fever, muscle pain, headache, diarrhea, vomiting, abdominal pain.
Aeromonas	Infected through open wounds or by drinking contaminated water	Avoid contact with or ingestion of contaminated water. Wear PPE (gloves, face shield) while handling fish	Symptoms may include diarrhea or blood infections.
Campylobacter	Ingestion of water from contaminated aquatic environments and seafood	Avoid contact with contaminated water. Wear PPE (gloves, face shield) while handling fish	Symptoms may include diarrhea, fever, and stomach cramps.
Chlamydiosis	Handling infected animals (may be found in frogs) or ingestion of contaminated aquarium water	Avoid contact with contaminated water. Wear PPE (gloves, face shield) while handling fish	Symptoms include runny or stuffy nose, fatigue (feeling tired), low-grade fever, hoarseness or loss of voice, sore throat, slowly worsening cough that can last for weeks or months, and headache.
Mycobacteriosis (Marinum, Liflandii, Chelona)	Contamination of lacerated or abraded skin with aquarium water or fish contact	Avoid contact with contaminated water Wear PPE (gloves) while handling fish	Symptoms can include dermatitis, nodules under the skin, lesions or skin loss. Lesions typically present as less than 2-cm-diameter, nodular, reddened swellings in the skin and joints of the extremities. Immunosuppressed persons can develop lymphadenitis & pulmonary disease similar to tuberculosis or more severe disseminated disease.
Salmonellosis	Ingestion of infected feces from animals or aquatic environments containing infected feces	Avoid contact with contaminated water. Wear PPE (gloves, face shield) while handling fish	Symptoms can include fever, nausea, diarrhea and abdominal pain.

Please note: this document is intended for use as a reference document. If you feel unwell after research travel or have specific questions in regards to your upcoming research travel please contact KAUST Occupational Health @ occupational.health@kaust.edu.sa.