

Flood related health risks

Information for Clinicians

Please distribute this information to all staff

Key points:

1. Widespread flooding across NSW may increase the risk of particular diseases, including leptospirosis. Increases in rodent activity in some regions may exacerbate this risk.
2. Consider leptospirosis in patients who have been exposed to flood water, soil or mud and who present with symptoms including fever, myalgia, headache and conjunctivitis. Seek specialist advice early about testing and antibiotic treatment.
3. Consider other flood-related disease risks in patients residing in affected areas, and in travellers returning from these regions. Risks to health may persist for weeks to come.

What's the issue?

Some areas of NSW are experiencing severe flooding, which increases the risk of leptospirosis and certain other diseases. The risk may be enhanced in areas of increased rodent activity. Consider flood-related diseases in patients directly affected by flooding and travellers from affected areas.

What is leptospirosis?

- Leptospirosis is a bacterial disease caused by *Leptospira* bacteria. The bacteria are shed in the urine of animals (including rats, pigs, cattle and dogs) and can contaminate the environment.
- Transmission typically occurs via cuts/abrasions on the skin (or occasionally via mucous membranes) that are exposed to contaminated water soil, or mud.
- Common initial symptoms include fever, headache, myalgia, chills, vomiting and conjunctivitis.
- Severe disease can develop with jaundice, renal failure and haemorrhage.
- Symptoms usually develop 5 to 14 days following exposure.
- Talk to your microbiology laboratory regarding testing for leptospirosis. Leptospirosis serology should be requested. Leptospirosis PCR can also be performed and is most useful in the first week of illness.
- Seek specialist advice regarding treatment. If leptospirosis is suspected clinically, start antimicrobial therapy before the diagnosis is confirmed. Doxycycline is preferred for empirical therapy because it also treats other potential causes of these symptoms. See [Australian therapeutic guidelines](#).

Preventive measures to communicate to patients

- Avoid swimming, wading or other contact with floodwater.
- Cover cuts and abrasions with waterproof dressings, especially before coming into contact with soil, mud or water that may be contaminated.
- Wear footwear outdoors, especially when walking in mud or moist soil.
- Wear suitable protective clothing including boots, gloves and eye protection while cleaning-up
- Control rodents by cleaning up rubbish and removing food sources that are close to housing.
- Wash hands with soap, as *Leptospira* bacteria are quickly killed by soap, disinfectants, and drying.

Other flood related disease risks

Water borne disease risk:

- Wounds sustained in floodwater should be cleaned thoroughly; tetanus boosters may be required. Consider the risk of *Aeromonas* (as well as the more common staphylococcal and streptococcal infections) in traumatic water-immersed wounds. Antibiotic prophylaxis is recommended for traumatic water-immersed wounds that are heavily contaminated or require surgical management, or in patients with underlying risk factors for developing severe infection. See [Australian therapeutic guidelines](#).
- Flooding and/or sewage overflow can cause contamination of drinking water, as well as natural water sources such as creeks, rivers and the ocean. Diseases caused by pathogens found in sewage (e.g. *E.coli*, hepatitis A) or other flood-borne organisms (e.g. *Cryptosporidium*) may occur.

Mosquito borne risks:

- After flooding, mosquito activity generally increases due to the presence of standing or stagnant water. Advise patients to take appropriate action to avoid mosquito bites. Mosquito borne illnesses such as Ross River virus and Barmah Forest virus may arise with increased mosquito activity.

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Food and medicine safety:

- Any food or medicine which has come into contact with floodwater should be discarded.
- Medications that require refrigeration may need to be discarded if they have been subject to power outages. If the medications are essential to sustain health, they should continue to be used until a new supply is available.

For further information please call your local Public Health Unit on 1300 066 055.



Dr Richard Broome
A/Executive Director, Health Protection NSW.