

Public Health Communique – TC Alfred

Environmental conditions after extreme weather events like TC Alfred increase the risk for infectious diseases. Skin infections, diarrhoeal disease, respiratory infections and mosquito-borne diseases are more common after cyclones and floods in Queensland.

Fortunately, significant disease outbreaks following extreme weather events are less common. If outbreaks do occur, they are most often caused by pathogens present in the community before the flood – including norovirus, respiratory viruses, pertussis, Ross River and Barmah Forest viruses.

Spread of respiratory and enteric pathogens may be amplified through **crowding** in **evacuation centres**.

Remain **alert** to potential outbreaks of **gastroenteritis** (two or more associated gastro cases) or **acute respiratory illness** during the recovery period. **Notify Metro North Public Health Unit (MNPBU)** if you have concerns about a potential outbreak or any other matter of public health significance, **P: 07 3624 1111**.

A range of Queensland Government fact sheets on specific topics related to disaster response and recovery can be found at: [Disasters | Emergency services and safety | Queensland Government](#).

Diarrhoeal disease

Norovirus and related viruses are leading causes of acute community-acquired gastroenteritis and are highly infectious through person-to-person spread; and through exposure to vomitus or contaminated surfaces, food or fluids. Incubation is typically 15 to 48 hours. Vomiting is a dominant symptom; cramping and diarrhoea can be mild-to-severe but usually last less than 48 hours. If suspected, please request viral testing on samples of faeces or vomitus, noting there may be delays to lab testing. Consider and test for bacterial pathogens especially if diarrhoea is bloody. A fact sheet on norovirus is available at: [Norovirus | Communicable disease control guidance](#).

Note that local government authorities will advise on breaches in reticulated water supplies and will issue **boil water alerts** as necessary. Evacuation centres are required to have adequate water, sanitation and hygiene facilities.

Vector-borne disease

Mosquito-breeding generally increases as flood waters recede. An increase in mosquito-borne diseases (Ross River virus and Barmah Forest virus) may follow increased mosquito numbers. If you see patients with fever and polyarthritis, with or without rash, please test for these viruses until the pattern of illness is established. Laboratory confirmed cases are notified to public health units by laboratories. Numbers of confirmed cases are made available to local governments to assist them with planning mosquito control activity.

Leptospirosis and melioidosis

Leptospirosis is a systemic zoonotic disease caused by spirochetes of the genus *Leptospira*. Humans become infected through contact with the urine of infected animals, either directly or indirectly through contact with water or soil. Multiple cases of leptospirosis were identified in Queensland following the flood events of 2011 and 2013. Although more likely in regional areas, leptospirosis may still occur in metropolitan Brisbane. It presents with a wide spectrum of clinical features and many cases exhibit non-specific influenza-like symptoms including fever, chills, headaches and myalgia. Complications can be severe and include hepatic and renal dysfunction, myocarditis, meningism and pulmonary haemorrhage with respiratory failure. Information on leptospirosis can be found at: [Leptospirosis | Communicable disease control guidance](#).

Testing for leptospirosis is dependent on the time since illness onset:

- <10 days since illness onset: Serum for PCR and IgM screen
- ≥10 days since illness onset: Serum for IgM and acute microscopic agglutination titre (MAT)

Suspected cases should have follow up convalescent serology including IgM and MAT at least 14 days from the first round of testing, as negative testing early in the illness does not exclude leptospirosis.

Melioidosis is a rare and potentially fatal tropical disease caused by *Burkholderia pseudomallei*, a bacterium found in soil. While very rare in Brisbane, it has received media attention recently following outbreaks in North Queensland associated with significant rain events. Most infections occur when skin abrasions or wounds come into contact with wet soil or water. Disease risk increases in adults with underlying diseases such as diabetes, chronic lung or kidney diseases, excessive alcohol consumption, cancers and treatments (such as steroids) which lower immunity. Most cases have a sudden onset, from a few days to three weeks after an apparent exposure to soil or muddy water. These acute cases can present as pneumonia with fever, cough and difficulty breathing or as septicaemia with fever, confusion and shock. While less of a concern for the SE Queensland extreme weather event, clinicians may still field enquiries given the recent North Queensland media interest. Advice around prevention of melioidosis is the same as for other conditions like leptospirosis, centring around avoidance of flood water and flood mud where feasible, wearing long-sleeve shirts, long trousers, enclosed waterproof footwear and gloves when in contact with flood water and flood mud, and thoroughly washing cuts and abrasions with clean fresh water and then covering with waterproof dressings. A fact sheet on melioidosis can be found at: [Melioidosis | Communicable disease control guidance](#).

Mould

Primary health care clinicians may be asked about mould during the clean-up and recovery from TC Alfred, as heat, humidity and water all promote the growth of mould. Exposure to mould is associated with exacerbation of allergies, asthma and worsening of other respiratory conditions. Discolouration of walls, ceilings and other surfaces is sometimes seen. At other times only a musty, distinctive and unpleasant odour is present.

The advice is to open doors and windows, and to use fans to help dry rooms as quickly as possible. Absorbent items that can't be cleaned easily like mattresses, carpet, leather goods and ceiling insulation should be thrown away if wet for more than two days. Items such as linen and stuffed toys should be washed in a hot wash using standard laundry detergent, but may require either professional cleaning or disposal.

Abrasive cleaning with a dry brush is **not recommended**, as spores may be released into the air. Likewise, bleach is not recommended as it is not overly effective against mould, although may be useful for removing other disease-causing pathogens found in floodwater. Many effective cleaning products are available, including most household cleaning agents or detergents when used effectively. White, fermented cleaning vinegar is also effective.

More detailed advice on mould cleaning, including advice on appropriate PPE, can be found at: [Flood | Emergency services and safety | Queensland Government](#).