

3 February 2019

Dear Doctor / Pharmacist

## **ALERT: storms and floods in North Queensland**

You will be playing a key role in our recovery from the prolonged flooding and associated disruptions in the region around Townsville.

People will be cleaning up after heavy rains and flooding. This can cause injuries to unprotected hands and feet, and exposure to contaminated water or mud leads to infections. Advise that elderly and immune compromised people should not do the cleaning up at all. Please insist on protective gloves and footwear, and immediate washing, antiseptic and dressing of wounds. Many will need a tetanus booster, or immunoglobulin if not already immune.

Rare weather events can lead to unusual diseases. We expect more cases of invasive environmental bacteria such as **leptospirosis** and **melioidosis**. If you suspect either, call an infectious diseases physician and inform your local Public Health Unit.

**Leptospirosis** is a zoonotic bacterium excreted in the urine of domestic and wild mammals. Human exposure is through skin or mucous membranes in wet environments (infection by drinking contaminated water or inhaling aerosols is less common). Farm workers, river swimmers and sportspeople are the usual risk groups, but during periods of heavy rainfall and flooding, many more people are exposed to contaminated waters.

The incubation period is 5-14 days. Patients present with abrupt fever, headaches and myalgia. About 30% have red eyes. Around 10% progress to jaundice, hypotension, renal and/or respiratory failure, requiring hospitalisation. Testing is based on days since onset:

- < 7 days after onset: serum for **PCR and blood culture**
- 7-10 days: serum for culture IgM and MAT (micro agglutination titre)
- > 10 days after onset: serum for IgM and MAT

**Melioidosis** is caused by tropical soil bacteria. The incubation period varies from two days to several weeks or longer. Exposure is from contaminated soil or water mainly through minor skin wounds. Ingestion or inhalation contaminated water is less common. Most cases have underlying risk factors: diabetes, chronic renal failure, lung disease, old age, immune compromise or alcoholism. Many more people are exposed following periods of heavy rain and flooding.

The bacteria may be cultured from blood, skin lesions, urine samples or throat swabs. Patients usually present as pneumonia with or without sepsis, but sometimes with ulcers or abscesses of skin, kidney, spleen or prostate. Septicaemia is rapidly fatal.

People displaced, re-entering inundated homes or after power-interruption face a variety of risks related to food spoilage, contamination and general hygiene. Most will be ordinary infections including viral gastroenteritis but food poisoning is possible too.

Remember that “**Food or water-borne illness in 2 or more cases**” is one of the **clinical Notifiable Diseases** that you must inform the Public Health Unit of before lab confirmation.

We have a variety of fact sheets for your patients on disaster issues, and guidance for doctors. For further information see:

<https://publications.qld.gov.au/dataset/public-health-disaster-management-fact-sheets>

<http://disease-control.health.qld.gov.au/Condition/722/leptospirosis>

[http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd\\_lepto.htm](http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd_lepto.htm)

<http://disease-control.health.qld.gov.au/Condition/766/melioidosis>

[https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0023/444245/notif-conditions-rpt.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0023/444245/notif-conditions-rpt.pdf)

Finally, please keep the NQPHN updated about when you are open or closed in the coming week, particularly if this is different to your usual hours. The disaster operations centre is getting many calls asking for this information so we need to keep this data up to date.

Please be on the lookout.

Regards,



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