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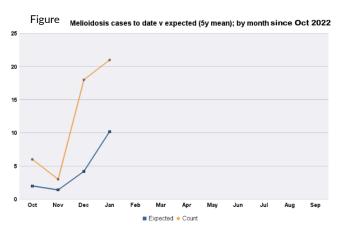
## Health Alert: Melioidosis Update

## Dear Colleague,

There have now been 49 cases of melioidosis **including 4 deaths** notified in the NT since the beginning of the 2022/2023 Wet season (starting 1 October 2022). <u>The last Health Alert for melioidosis issued 30 December 2022</u> reported 22 cases of melioidosis, including 3 deaths.

The Figure below shows the earlier than usual and marked increase in cases this Wet season compared to those expected. It is not that surprising that numbers have been elevated since Cyclone Ellie in December and the continuous rain that has followed. Melioidosis, a disease caused by the bacterium, *Burkholderia pseudomallei*, is found in tropical soil and water.

Again this Wet season the diversity of presentations in patients with melioidosis continues. The majority of patients are unwell, with the most severe requiring ICU management because of sepsis and involvement of various organs. Most frequently the lungs are involved (presenting as community-acquired pneumonia) but abscesses presenting in the prostate are not unusual. Brain, bone and joint involvement have also been seen repeatedly this year. The vast



majority of the unwell patients have had at least one clinical risk factor, with diabetes being the most common. As always a small number of healthy people, particularly children, have non-life-threatening melioidosis skin sores, which heal fully once diagnosed and treated appropriately. Swabs are required for non-healing skin sores with a request to "test for melioidosis".

Of note of the 49 notified melioidosis cases, 32 are Aboriginal people from urban and remote settings reflecting a higher percentage (65%) than that recorded for the Aboriginal cases notified in the recent 30 year review of cases in the Top End . This study reported 600 of the total 1148 notified cases (52%) were Aboriginal people. The 49 total cases this Wet season represent an age range from 7 to 81 years, with a median of 49 yrs.

Clinicians need to inform patients, especially those with risk factors for melioidosis, of how to protect themselves from the disease. As melioidosis is unique to the tropics and subtropics it is important in the NT to make new residents and visitors to the Top End (e.g. older relatives)

Page 1 of 2 nt.gov.au

aware of melioidosis. Clinicians need to have a high suspicion for the disease especially in patients with risk factors – with those with diabetes being top of the list.

The most important risk factors for melioidosis include:

- Diabetes mellitus (most common)
- Hazardous alcohol use
- Chronic kidney disease (particularly dialysis patients)
- Chronic lung disease (including COPD and bronchiectasis)
- Other immunosuppression e.g. steroids, immunosuppressive therapy, malignancy

Patients with risk factors should be advised to:

- stay inside during heavy wind and rain
- wear footwear when outside and avoid pools of water; generally protect your feet
- wear gloves when handling soil or muddy items and to protect hands from cuts
- avoid binge and heavy alcohol use
- wear protective masks when using high pressure hoses

Dialysis patients in the Top End are now being given prophylaxis during the wet season with co-trimoxazole after each dialysis session.

If you have a patient with suspected melioidosis, in addition to other investigations, it is recommended to perform all of the following if available (see CARPA Standard Treatment Manual, p. 375 - Home | RPHCM Manuals (remotephcmanuals.com.au)

- Blood cultures (prior to antibiotics)
- Sputum culture (if any productive sputum)
- Urine culture
- Throat and rectal swabs (each placed into Ashdown broth bottles or if these not available using separate blue-top swabs with gel)
- Swab of skin lesion or aspirate of abscess for culture

Mention "possible melioidosis" on the request so that specific selective culture media is used.

All cases of confirmed melioidosis, and all patients with suspected melioidosis who are unwell, should be referred to hospital for inpatient workup and management.

A fact sheet with more information on melioidosis is available at Melioidosis (nt.gov.au)

Yours sincerely,

## Dr Vicki Krause

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Page 2 of 2 nt.gov.au