Health New Zealand
Te Whatu Ora

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| **Event** | **Diphtheria outbreak in Australia – increased vigilance for diphtheria in New Zealand** |
| **Notified by** | Clinical Team, Protection, National Public Health Service (NPHS) |
| **Authorised by** | Dr Susan Jack, National Clinical Director, Protection, NPHS |
| **To** | Chief Medical Officers of Health, Hospital Specialists, After-Hours Centres, Emergency Departments, Primary Care Providers, Urgent Care providers, Pharmacists, Regional Infection Prevention and Control teams, Regional Occupational Health teams, Immunisation coordinators, HealthPathways, Healthline, Ka Ora, HealthEd, Healthify, NPHS national and regional services, Medical Officers of Health, regional Comms Leads including Hauora Māori & Pacific Health, Office of the Director of Public Health (Manatū Hauora), PHF-Science. |

## Ongoing diphtheria outbreak involving several Australian states – current risk to New Zealand is low.

The Northern Territory (NT) of Australia is currently experiencing a significant diphtheria outbreak which has now spread to parts of Western Australia (WA), Queensland (QLD) and South Australia (SA).

As at 27 April, 117 cases have been reported in 2026 (NT 74; WA 39; QLD 2; SA 2). The majority of these have been in Indigenous peoples (92%), and in rural and remote areas (98%); 2 cutaneous cases were acquired overseas. Approximately one quarter of cases have been respiratory diphtheria. The remainder have been cutaneous disease.

**Risk of a diphtheria outbreak in New Zealand**

The overall risk of introduction of toxigenic diphtheria to New Zealand is considered **low**.

However, if introduced, the risk of an outbreak increases significantly in areas with low vaccination coverage (e.g. less than 80–90%), particularly in high density settings.

Clinically severe diphtheria is caused by toxin-producing (toxigenic) strains of *Corynebacterium diphtheriae* or *Corynebacterium ulcerans*. Infection with toxigenic diphtheria strains is rare in New Zealand with between 0–4 cases per year over the last 10 years; all were cutaneous diphtheria. However, toxigenic diphtheria strains continue to circulate elsewhere in the world, and there is an ongoing risk of importation through international travel.

Diphtheria antitoxin can be arranged via your local hospital pharmacy. New Zealand currently has antitoxin stock available which is held at Auckland City Hospital Pharmacy.

**Key messages for healthcare professionals**

- Be alert for diphtheria in returning travellers from Australia and areas where diphtheria is endemic, including Asia and the South Pacific who present with severe acute respiratory illness (ARI) or non-healing ulcers.
- Test anyone presenting with compatible symptoms with a nasopharyngeal or throat swab or skin swab for cutaneous lesions. Severe disease is characterised by significant neck swelling, presence of pseudo membrane in the pharynx, difficulty breathing, and signs of sepsis.
- Notify your local Medical Officer of Health of all suspected cases. Do not wait for test results. Contact them **urgently** as per your usual notification process.
- Advise anyone that has been tested for diphtheria to **isolate at home** until their results are known – public health will contact them if they have a positive test result.
- Healthcare providers should continue to encourage pregnancy and on time infant and childhood vaccines and support catch up vaccinations for those not yet fully vaccinated.

**Key actions for healthcare professionals**

**Identify**

- Prioritise assessment of possible diphtheria in anyone with recent travel to Australia and other countries where diphtheria is endemic and a compatible presentation:
    - Diphtheria often begins with mild, cold-like symptoms but can quickly become severe. Common symptoms include sore throat and mild fever. Severe disease is characterised by any of the following: significant neck swelling ('bull neck' associated with lymphadenopathy), thick grey membrane at the back of the throat, breathing difficulty, signs of sepsis. Complications include myocarditis, arrythmias and neuropathy.
    - Cutaneous diphtheria is characterised by well-demarcated non-healing ulcers that may be covered in grey-white necrotic slough sometimes giving a bluish appearance to the wound. Localised injury to the skin often precedes infection, for example, a graze or insect bite. The diagnosis of cutaneous diphtheria should be considered for a non-healing ulcer typically after recent travel to an area with known outbreaks occurring.
- People with respiratory diphtheria must be urgently assessed for their risk for, and evidence of severe disease, particularly if unvaccinated.

**Isolate**

- Advise the patient to remain at home (or in an appropriate healthcare setting) and avoid contact with others until public health guidance is provided.
- If the patient is in a healthcare setting, immediately place suspected cases in droplet and contact precautions.
- Ensure healthcare staff use appropriate personal protective equipment (PPE), including a surgical mask, gloves, and gown when assessing the patient. Ensure appropriate disposal of laundry and clinical waste, and appropriate cleaning and disinfection of the patient's environment. Notify the local public health unit promptly if diphtheria is suspected.

**Test**

- Collect and test samples from all suspected cases of diphtheria, including a nasopharyngeal swab, throat swab, and skin swabs where cutaneous infection is suspected. Consider blood cultures where clinically indicated.

- Include relevant clinical details, travel history, date of symptom onset, and known diphtheria vaccination history on the laboratory request form.
- Inform the clinical microbiologist that the sample is from a suspected case of diphtheria to ensure appropriate laboratory handling and notification processes are followed.
- Do not send patients to community laboratory collection centres for testing. Arrange specimen collection in a controlled setting using appropriate infection prevention measures.

**Notify**

- If diphtheria is suspected, notify your local Medical Officer of Health **urgently** as per your usual notification process for urgent referrals (i.e. by eReferral for Northern region, and phone call for all other regions)
- See here for contact details for local public health services.

**Prevent**

- Diphtheria immunisation is effective in preventing major community outbreaks. Diphtheria was a common cause of death in children until the 1940s, but this disease is now very rare in New Zealand because of immunisation.
- Diphtheria protection is included in three vaccines on the National Immunisation Schedule: Tdap (Boostrix), DTaP-IPV-HepB/Hib (Infanrix-hexa) and DTaP-IPV (Infanrix-IPV).
- Protection for babies starts from Tdap (Boostrix) vaccination from 16 weeks gestation in every pregnancy which provides maternal antibody protection in the early weeks after birth.
- The primary course of three doses of diphtheria vaccination is given to babies as part of the DTaP-IPV-HepB/Hib (Infanrix-hexa) vaccine administered at 6 weeks, 3 months and 5 months.
- A booster is scheduled at 4 years as part of the DTaP-IPV (Infanrix-IPV) vaccine, with further boosters using the Tdap (Boostrix) vaccine, at ages 11 years, 45 years (for those who have not already received 4 doses) and 65 years.
- Healthcare providers should continue to encourage pregnancy and on time infant and childhood vaccines and support catch up vaccinations for those not yet fully vaccinated.
- Scheduled boosters are needed to maintain immunity for older age groups. Important groups to also consider include migrant groups from endemic regions and groups more vulnerable to vaccine preventable diseases due to, for example, homelessness.

**Further information**

Public health management of diphtheria: Diphtheria – Health New Zealand | Te Whatu Ora

Clinical presentation of cutaneous diphtheria: Cutaneous diphtheria

Latest Australian diphtheria outbreak reports: Diphtheria in Australia – Epidemiological updates | Australian Centre for Disease Control

Interim diphtheria outbreak management guidelines: CDNA Interim guidance for diphtheria outbreak management | Australian Centre for Disease Control