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A case of diphtheria in New Zealand

The New Zealand Ministry of Health has advised the National Centre for Disease Control of a case in Auckland in which toxigenic *Corynebacterium diphtheriae* was isolated from the throat of a 32 month old unimmunised child with pharyngitis. The child responded to antibiotics and did not require hospitalisation or antitoxin. This was the first isolate of toxigenic diphtheria in New Zealand since 1987. The case highlights the need to ensure that infants, children and adults are fully immunised against diphtheria.

There have been no notifications of diphtheria due to toxigenic *Corynebacterium diphtheriae* in Australia since 1993, when one case was reported. However, both toxigenic and non-toxigenic strains of the organism have been shown to be endemic in parts of Australia and there remains the potential for serious disease to occur.¹ Children and adults who are unimmunised, or whose immunity has waned because they have not received

appropriate boosting, remain at risk of contracting the disease and spreading it within the community.^{2,3} All children and adults should be vaccinated in accordance with the recommendations of the National Health and Medical Research Council.⁴ These were last published in *CDI* in 1997 and are reiterated below.

References

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National Health and Medical Research Council recommendations on diphtheria vaccination

The National Health and Medical Research Council recommends diphtheria vaccination as part of the standard childhood vaccination schedule.¹ Primary vaccination is achieved with three doses of a diphtheria toxoid-containing vaccine at one to two monthly intervals, with boosters at 18 months and four to five years.

Prior to the eighth birthday DTP (diphtheria, tetanus, pertussis vaccine) should be given. If there is a **genuine** contraindication to pertussis vaccine, CDT (adsorbed diphtheria, tetanus vaccine, paediatric formulation) should be used. After the eighth birthday, the low dose diphtheria adult formulation (ADT) should be given. The change to ADT after the eighth birthday is required because of the reduced tolerance of older children and adults to diphtheria toxoid.

Older children who have not received diphtheria vaccination are also likely to have missed tetanus vaccination. Those who have not reached their eighth birthday should receive three injections of DTP (or CDT) at intervals of one to two months, and those individuals who have passed their eighth birthday should receive three doses of ADT at intervals of two months.

The need for booster injections in adult life is unclear. However, as protective antibody levels wane with age, it is considered prudent for adults to have booster injections, which may be given as ADT vaccine, at 10 year intervals. Diphtheria can be a significant risk for travellers to some countries, so all international travellers should ensure that their vaccination is current.

Reference

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