

Guideline

Tetanus Prophylaxis in Wound Management

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Applicable to	All Children's Health Queensland Staff				
Authorisation	Executive Director Clinical Services (QCH)				

Purpose

This guideline is to aid in the prescription of tetanus prophylaxis for tetanus prone wounds in children and adolescents according to the [Australian Government Department of Health Immunisation Handbook](#).

Scope

This guideline relates to Children's Health Queensland (CHQ) staff involved in the assessment and treatment of tetanus prone wounds. Refer to the Australian Government Department of Health Immunisation Handbook ([Section Tetanus](#)) for more information.

This guideline is not intended to be a substitute for specific professional or clinical advice, or to replace consultation with senior staff, which should always be sort if clinically relevant.

This material is published by Children's Health Queensland with the intention of providing a guideline for use at the Queensland Children's Hospital (QCH). Anyone wishing to use this guideline outside of the QCH should refer to their local Medicines Advisory Committee before using.

Related documents

Policy and standard(s)

- [Health \(Drugs & Poisons\) Regulation 1996](#)
- [CHQ-HMP Vaccination Program – Health Management Protocol](#)
- [CHQ-PROC-01000 Medication](#)
- [CHQ-PROC-01039 Medication - Administration](#)
- [CHq-PROC-01017 Adverse Drug Reaction – Documentation and Reporting](#)
- [CHQ-PROC-01001 Medication – Prescribing](#)
- [CHQ-GDL-63000 Management of Water-immersed Wound Infections in Children](#)

- [CHQ-GDL-01202 CHQ Paediatric Antibiocard: Empirical Antibiotic Guidelines](#)
- [CHQ-WI-02924 Immunoglobulin: NHIg, HBIg, TIg and Zig \(passive immunisation\)](#)

Guideline

Definition of Tetanus Prone Wound¹

Any wound other than a clean, minor cut is 'tetanus-prone.' Tetanus may occur after a seemingly trivial injury and it is possible to have no obvious signs of injury.

Certain types of injuries can favour the growth of *Clostridium tetani*, including:

- compound fractures (fractures associated with a break in the skin)
- bite wounds
- deep, penetrating wounds
- wounds that contain foreign bodies (especially wood splinters)
- wounds that are complicated by pyogenic infections
- wounds with extensive tissue damage (for example, contusions or burns)
- any superficial wound that is obviously contaminated with soil, dust or horse manure (especially if topical disinfection is delayed more than four hours)
- reimplantation of an avulsed tooth, because the tooth undergoes minimal washing and cleaning to increase the likelihood of successful reimplantation
- depot injections, either subcutaneous or intradermal, in people who inject drugs

Management of Tetanus Prone Wound¹

Antibiotics do not prevent or treat tetanus. All tetanus-prone wounds must be disinfected and, where appropriate, have surgical treatment.

Tetanus-Prone Wound Prophylaxis

People who have a tetanus-prone wound should receive tetanus immunoglobulin (TIG) for passive protection if either:

- they have not previously received three or more doses of a tetanus-containing vaccine, or
- there is doubt about their tetanus vaccination status, or
- they have a humoral immune deficiency, HIV or immunocompromised

Tetanus Immunoglobulin Administration

Dose of Tetanus Immunoglobulin for tetanus prophylaxis:

- 250 International Units if 24 hours or less since injury
- 500 International Units if more than 24 hours since injury

Note: Tetanus Immunoglobulin dosage is not weight or age based

- Tetanus Immunoglobulin provides immediate protection that lasts for 3–4 weeks.
- Tetanus Immunoglobulin will need to be prescribed as per [CHQ-PROC-01001 Medication - Prescribing](#) and administered in line with [CHQ-PROC-01039 Medication - Administration](#).
- Tetanus Immunoglobulin should be administered via intramuscular route as soon as practically possible after the injury.
- Patients receiving Tetanus Immunoglobulin should also receive a tetanus-containing vaccine at the same time in the opposite limb with a separate syringe (see Tetanus Vaccination section); for infants under 6 weeks of age seek ID advice.

For more information on Tetanus Immunoglobulin see [CHQ-WI-02924 Immunoglobulin: NHlg, HBIg, TIg and Zlg \(passive immunisation\)](#).

Tetanus Vaccination

A primary course of tetanus containing vaccine is included on the National Immunisation Program (NIP) at 2, 4 and 6 months of age. Booster doses of tetanus containing are included on the NIP at 18 months of age, 4 years of age and in Year 7 of schooling.

Patients less than 9 years of age who have received 3 or more doses of tetanus containing vaccine as per the NIP are not recommended additional doses of tetanus containing vaccine; the exception to this is for those who are immunosuppressed or immunocompromised (seek ID advice).

A Tetanus containing vaccine is recommended for patients who have NOT:

- completed a primary tetanus vaccination course (e.g. 3 dose course) OR
- received a booster dose of tetanus containing vaccine within the last 5 years or as per NIP

For patients requiring a tetanus containing vaccine:

- Completion of tetanus vaccination course is highly recommended.
- If vaccination is refused, this should be documented in the medical notes.
- See [Appendix 1](#) for the [Algorithm to Aid in the Prescription of Tetanus Wound Prophylaxis](#).
- Patient should be provided written information of when next tetanus containing vaccine is recommended (e.g. more than 5 years).

Tetanus Vaccines

- Less than 10 years of age who are due a primary course or booster dose of tetanus containing vaccine should be recommended a DTPa containing vaccine (e.g. Infanrix-IPV/Quadacel [DTPa-IPV] or Infanrix-Hexa [DTPa-IPV-Hib-HepB]).
- **Note:** Infanrix/Tripacel [DTPa] vaccine can be used for those due or overdue this vaccine as per the NIP at 18 months of age. Infanrix/Tripacel [DTPa] vaccine is not funded for use for catch-up or those choosing not to receive the recommended DTPa containing vaccine offered on the NIP.
- Over 10 years of age who are due a primary course or booster dose of tetanus containing vaccine should be recommended a dTpa containing vaccine e.g. Boostrix/Adacel [dTpa] vaccine.

Consultation

Key stakeholders who reviewed this version:

- QCH Service Group Director Infectious Diseases, Immunology/Allergy, Rheumatology
- Queensland Specialist Immunisation Service Senior Medical Officer
- Queensland Specialist Immunisation Service Nurse Practitioner
- Queensland Specialist Immunisation Service Pharmacist
- QCH Director of Pharmacy
- QCH Antimicrobial Stewardship Pharmacist
- QCH Pharmacist Safety and Quality
- QCH Emergency Department Senior Medical Officer
- QCH Director of Surgery

Definition of terms

Term	Definition	Tetanus containing Vaccine Brand(s)
DTPa	Child dose: Diphtheria, tetanus, pertussis	Infanrix-IPV® or Quadracel® (DTPa+IPV) Infanrix-Hexa® (DTPa+IPV+Hib+Hep B) Infanrix® (DTPa)
dTpa	Adult dose: Diphtheria, tetanus, pertussis	Boostrix® (dTpa) Adacel® (dTpa)
Hep B	Hepatitis B	Infanrix-Hexa® (DTPa+IPV+Hib+Hep B)
Hib	H. influenzae type b	Infanrix-Hexa® (DTPa+IPV+Hib+Hep B)
IPV	Inactivated polio vaccine	Infanrix-IPV® or Quadracel®(DTPa+IPV)
TIG	Tetanus Immunoglobulin	Tetanus Immunoglobulin

References and suggested reading

1. Australian Technical Advisory Group on Immunisation (ATAGI). The Australian Immunisation Handbook online. Canberra: Australian Government Department of Health, 2018.

Additional Resources

- [Australian Government Department of Health - Questions about vaccination](#)
- [National Centre for Immunisation Research & Surveillance \(NCIRS\)](#)
- [NCIRS - SKAI Project: Sharing Knowledge About Immunisation](#)
- [Australian Government Department of Health Immunisation Handbook online - Fundamentals of Immunisation](#)
- [Australian Government Department of Health Immunisation Handbook online - Tetanus](#)

Guideline revision and approval history

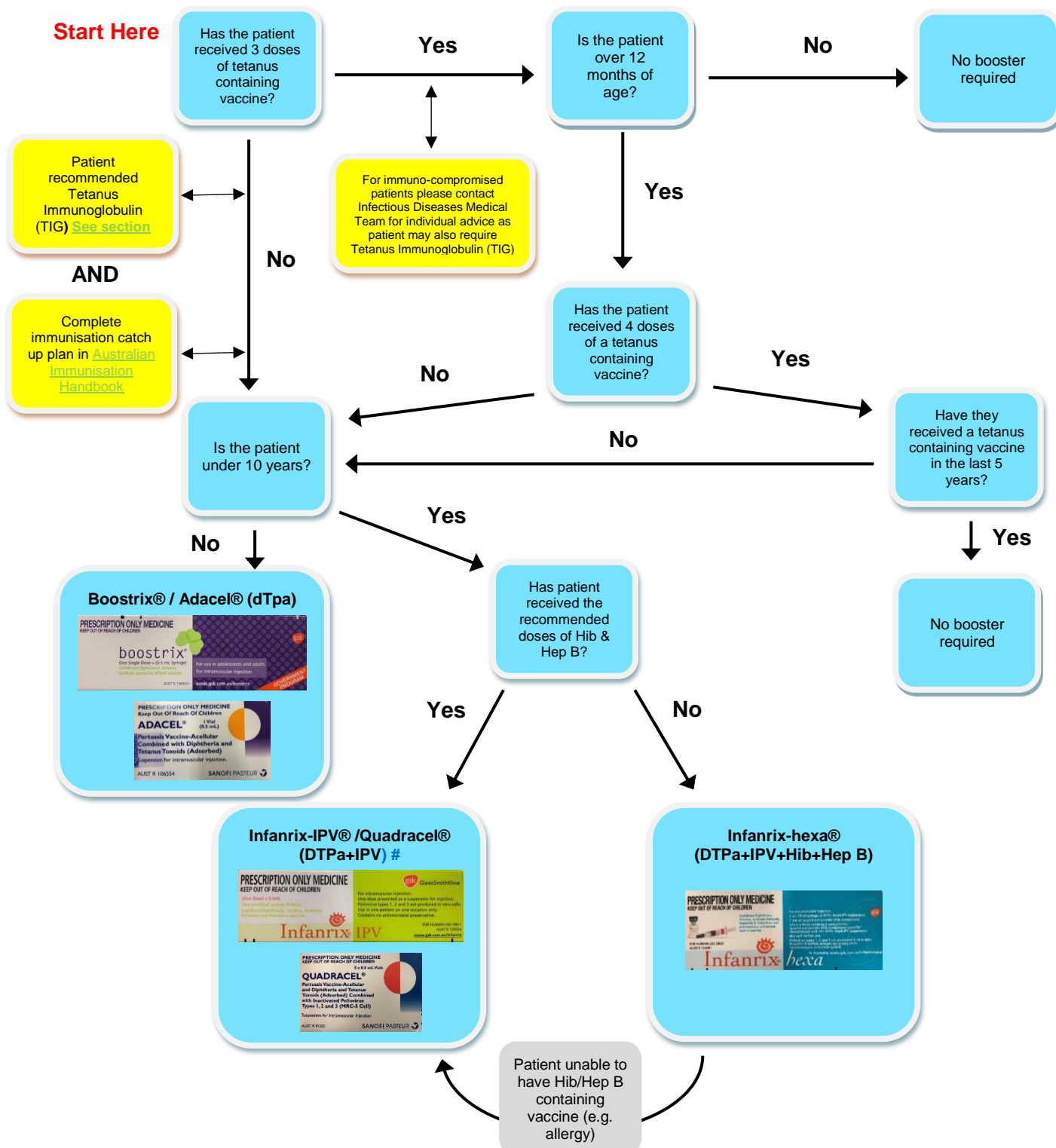
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1.0	Andrew Paton	Executive Director Medical Services	General Manager Operations
2.0 05/08/2016	Nurse Practitioner, Immunisation; and Pharmacist	Executive Director Medical Services	Executive Director Clinical Services (QCH)
3.0 28/0/2019	Nurse Practitioner, Immunisation; and Pharmacist	Executive Director Medical Services	Executive Director Clinical Services (QCH)
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Appendix 1 - Algorithm to Aid in the Prescription of Tetanus Wound Prophylaxis for those:

- Unvaccinated (excludes under 6 weeks – seek advice from ID)
- Not vaccinated as per NIP
- 9 years of age or older, previously vaccinated as per NIP

Please read [Tetanus Vaccination \(page 3\)](#) prior to using this algorithm aid.



Note: If due 18 month old vaccine as per National Immunisation Program see note on page 3 ([Tetanus Vaccines](#))