# Princess Margaret Hospital for Children Emergency Department Guideline

PAEDIATRIC ACUTE CARE GUIDELINE				
Tetanus Prophylaxis				
Scope (Staff):	All Emergency Department Clinicians			
Scope (Area):	Emergency Department			

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# **Tetanus Prophylaxis**

# **Background**

#### **Tetanus Prone Wounds**

- Tetanus can follow apparently trivial, even unnoticed wounds. However, some wounds tend to favour the growth of tetanus organisms; these include
  - Compound fractures
  - Deep penetrating wounds
  - Bite wounds
  - Wounds containing foreign bodies (especially wood splinters)
  - Wounds complicated by pyogenic infections
  - Wounds with extensive tissue damage
  - Any superficial wound obviously contaminated with soil, dust or animal manure
  - Tooth re-implantation

#### **Contraindications** <sup>3</sup>

- Anaphylaxis following a previous dose of any tetanus containing vaccine
- Anaphylaxis following any vaccine component

Alternative measures including the use of tetanus immunoglobulin can be considered if a person with a tetanus prone wound has had a severe adverse event following a tetanus vaccine.

#### **Assessment**

### **Guide to Tetanus Prophylaxis in Wound Management** <sup>2</sup>

Vaccination History		Type of wound	Tetanus vaccine booster	Tetanus immunoglobulin
3 or more doses	< 5 years since last dose	All wounds	No	No
	5-10 years since last dose	Clean minor wounds	No	No
		All other wounds	Yes	No
	> 10 years since last dose	All wounds	Yes	No
< 3 doses or uncertain		Clean minor wounds	Yes	No
		All other wounds	Yes	Yes

# Management

#### **Tetanus Vaccination**

- Tetanus toxoid vaccines in Australia are only available in combination with diphtheria and other antigens.
- If a child has not had 3 doses of tetanus vaccine (or if there is uncertainty) and meets the <u>criteria</u> above:
  - A patient ≤ 10 years of age should be given DTPa-IPV (Infanrix-IPV or Quadracel)
  - A patient > 10 years of age should be given dTpa (Boostrix or Adacel)
- A combination vaccine with pertussis is preferable in order to increase community protection. However if a pertussis vaccine is contraindicated then another tetanus vaccination combination may be used.
- If a patient is given a tetanus vaccination and has not received a previous primary course they should be advised to complete the course with a further 2 vaccinations.

#### **Tetanus Immunoglobulin (TIG)**

- TIG is used for passive protection of people who have not had three or more doses of Tetanus vaccine or where there is any uncertainty regarding immunisation status, who have a tetanus prone wound.
- It should be given IM, slowly using a 23 gauge needle in children because of its viscosity.
- A Tetanus vaccine must be given at the same time in the opposite limb. Arrangements should be made for catch up vaccines if required.
- At PMH, TIG is available from the Transfusion Medicine Unit, to order contact the Transfusion Medicine Scientist and provide patient details and clinical history.
- Refer to the <u>Haematology Transfusion Medicine Protocol 14.2 Tetanus Immunoglobulin</u> for further information

## **Nursing**

#### Vaccines should be given, as follows:

- Refer to the Australian Immunisation Handbook Vaccination Procedures
- Vaccines are prescribed on the medication sheet by the patient's doctor and given by either a doctor or nurse according to CAHS medication policy
- Recipients of vaccines should remain under close observation for at least 15 minutes to ensure they do not experience an immediate adverse event
- Immediately notify medical staff of adverse events following immunisations
- Report adverse events to the <u>Western Australian Vaccine Safety Surveillance</u> system or email: waves@health.wa.gov.au
- Document incident in patient medical notes

#### Record vaccine/s given in the following documentation

- ACIR online (only for children under 7 years of age). At PMH refer to ED Guideline <u>Immunisation</u> regarding the process
- Personal health record book or provide a WA Childhood Vaccination Record Card
- Patient medical notes

# Further immunisation advice can be obtain by contacting one of the following PMH staff:

- Clinical Nurse Consultant Immunisation Extension 8190
- Paediatric Infectious Diseases Services
- Dr Peter Richmond Immunologist

### **Tags**

adacel, adt, animal, boostrix, compound fractures, contaminated, deep, dirt, dirty, dtp, dtpa, duct, faeces, foreign bodies, ig, immunisation, immunised, infanrix, infection, infections, laceration, manure, penetrating, pyogenic, soil, tetanus, tetanus immunoglobulin, tetanus prophylaxis, tig, tooth reimplantaion, toxoid, vaccination, vaccine, wood splinters, wound, wounds

#### References

- 1. National Health and Medical Research Council. Australian Immunisation Handbook 10th Edition 2013. Australian Government Department of Health and Ageing 2. National Health and Medical Research Council. Australian Immunisation Handbook 10th Edition 2013. Australian Government Department of Health and Ageing
- Guide to tetanus prophylaxis in wound management Table 4.19.1, pg 404.

  3. National Health and Medical Research Council. Australian Immunisation Handbook 10th Edition 2013. Australian Government Department of Health and Ageing -4.19.10 Contraindications, pg 404.
- 4. Australian Product Information Quadracel® Accessed online 26 March 2015 at: http://products.sanofi.com.au/vaccines/QUADRACEL\_AUS\_PI.pdf
  5. Australian Product Information Infanrix® IPV Accessed online 26/3/2015
- $at: https://www.gsk.com.au/resources.ashx/vaccineproductschilddataproinfo/424/FileName/522B159E43356E2F4B1CF38BA566099B/INFANRIX-IPV_PI_004\_clean\_pdf.pdf$ **External Review**

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