

Chief Health Officer advice to doctors in flood affected areas

19 January 2011

Status: Active

This advice relates to the provision of tetanus-containing vaccine and the treatment of water-related infections, in the event of penetrating injuries in persons clearing up flood related damage.

Tetanus immunisation protocol

Wound assessment and management

A full medical assessment is needed to determine if wounds are tetanus prone. All penetrating injuries, however trivial, should be considered to be tetanus prone, as well as more serious injuries with tissue damage such as burns. If it is determined that tetanus vaccine is required, it can be accessed via the Doctors Bag Emergency Supply (as ADT vaccine).

If there are problems with supply through the doctors bag scheme, the vaccine may be ordered through the Immunisation Section of the Department of Health.

Tetanus Immunoglobulin (TIG)

Tetanus immunoglobulin (TIG) is available from the Red Cross (Ph 9694 0364) for a tetanus-prone wound if a course of tetanus vaccine has not previously been given.

National Immunisation Program

The current National Immunisation Program (NIP) recommends a tetanus containing vaccine at 50 years of age (provided a previous dose has not been given in the past 10 years). Immunisation providers in flood affected areas are encouraged to take this opportunity to ensure that this dose is administered in accordance with the recommendations in the Australian Immunisation Handbook (9th edition).

This vaccine is accessed through the Immunisation Section of the Department of Health.

There is no indication for any other provision of tetanus immunisation. Routine 10 yearly booster doses are no longer recommended.

How to order vaccine

All vaccine orders should be directed to the Immunisation Section on:

Telephone: 1300 882 008

Facsimile: 1300 768 088

For **anti-venom**, GPs ring CSL Customer Service on 1800 008 275 direct for orders and enquiries. CSL advises that there is no current issue with supply.

Water-related infections – advice for GPs

Flooding is associated with an increased risk of certain infections. The major risk factors for infection are contamination of drinking water, infections contracted through direct skin contact with polluted water and vector borne diseases.

Skin infections

The usual bacterial causes should be first considered (*Staph aureus* and *Strep pyogenes*) in patients presenting with cellulitis and deeper skin infections after exposure to water and antibiotic therapy, where indicated, should be targeted against these organisms. However, a number of less commonly encountered water-dwelling organisms (notably *Aeromonas* species) may also cause skin infections in these circumstances. The resulting illness may range from a superficial skin infection, to more deep, serious or systemic manifestations (myositis, sepsis +/- metastatic complications). **Patients with underlying systemic illness are particularly prone to developing more serious manifestations.**

- For minor skin infections, treat **as for mild early cellulitis** (as per Therapeutic Guidelines Antibiotics, Version 14 with di/flucloxacillin or phenoxymethylpenicillin if *S. pyogenes* is suspected/confirmed. Cephalexin can be used for patients with penicillin hypersensitivity and clindamycin for patients with immediate hypersensitivity)
- For contaminated wound infections, treat as usual for contaminated wounds (see below for additional antibiotic advice).
- Local management of skin lesions as per usual clinical practice may include: incision, drainage and debridement, with collection of appropriate specimens for microbiology as indicated. **Assessment of the need for tetanus vaccination is also required.**
- Where possible collect a wound swab and modify treatment if necessary based on the result.

Exposure to fresh water

For fresh water-related skin infections of more significant severity, an antibiotic with activity against *Aeromonas* sp can be **added to the usual antibiotic as outlined above**. Suitable drugs against *Aeromonas* sp for adults include ciprofloxacin in a dose of 500 mg orally, 12-hourly (while no PBS Authority is currently available for this indication, attempts are underway to have this changed) or co-trimoxazole (in the non-sulfa-allergic patient).

For children over the age of 12 years ciprofloxacin can be used (12.5 mg/kg up to 500 mg orally, 12-hourly). For children under the age of 12 years use co-trimoxazole.

Aeromonas sp infection may result in a superficial skin infection, myositis or sepsis with metastatic complications. For patients presenting with more serious infections, admission to hospital for consideration of intravenous antibiotic therapy is advised. Specialist advice from an Infectious Diseases Physician or Clinical Microbiologist should be sought.

Exposure to salt water

For water-related skin infections of more significant severity in patients who have been exposed to **salt water**, an antibiotic with activity against *Vibrio* species (*Vibrio vulnificus*, *Vibrio alginolyticus* and other non-cholera vibrios) can be **added to the usual antibiotic** as described under skin infections. A suitable drug in adults in this circumstance would be doxycycline 200 mg orally for the first dose, then 100 mg orally 12-hourly.

For antibiotic therapy in children please seek specialist advice.

For more serious infections, admission to hospital for consideration of intravenous antibiotic therapy is advised. Please seek specialist advice from an Infectious Diseases Physician or Clinical Microbiologist.

Vector-borne diseases

A range of mosquito-borne infections may become more frequent in Victoria following the flooding. Whether this will occur will depend on pre-existing virus transmission/presence, animal movements, mosquito breeding and other factors. These viruses include Ross River and Barmah Forest viruses.

If increased arbovirus infections occur, it is likely that this will be delayed for some time following the peak of the flood.

The most likely presentation of these infections is joint inflammation and pain, fatigue and muscle aches. Many infected people also develop a rash. Fever is usually not a prominent feature.

Serology and/or PCR testing is the appropriate way to make the diagnosis.

Other Infections

While **diarrhoeal illnesses** may occur more commonly following the flood, their clinical presentation and management should not differ from current clinical practice.

Leptospirosis (a zoonotic bacterial disease) can also be transmitted from water, mud/soil contaminated with infected rodents, pigs, cattle, and wildlife urine through contact of the skin and mucous membranes.

For more information

A range of useful fact sheets on preparing for and recovering from floods is available at:
http://health.vic.gov.au/environment/emergency_mgmt/flood.htm

An on-call Infectious Diseases Physician and Microbiologist can be contacted via your nearest major hospital switchboard.

The Department of Health's Communicable Disease Prevention and Control Unit can also be contacted for public health (not clinical) advice during business hours on **1300 651 160**. After hours, a public health officer is available via **1300 790 733** paging service.

For information about vaccine cold chain management strategies for a power outage see the Chief Health Officer's advice: [Vaccine cold chain management strategies for a power outage](#).