



PAEDIATRIC ACUTE CARE GUIDELINE

Rabies and Lyssavirus

Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

This document should be read in conjunction with this DISCLAIMER
<http://kidshealthwa.com/about/disclaimer/>

Rabies and Lyssavirus

Rabies virus and Australian bat lyssavirus (ABLV) are members of the Rhabdoviridae family, genus.¹ These viruses cause the rabies disease.

Lyssavirus infection is a **notifiable disease** and considered to be an **urgent public health priority**¹

Background

- **Australian bat lyssavirus** ABLV – (first identified in 1996) has been found in several species of flying foxes and bats in Australia, and has been associated with 2 human deaths, one in 1996 and one in 1998.
- It is assumed that ABLV infection has the same clinical features as rabies. Hence, rabies post-exposure prophylaxis recommended for patients with a possible exposure to ABLV or rabies.

Clinical features of Rabies

- Incubation period : 1 week to several years (usually 3-8 weeks)
- Risk highest in bites to head and neck (close to CNS) and fingers (richly innervated)
- Prodromal Phase (10 days) – nonspecific-anorexia, cough, fever, headache, myalgia, sore throat, nausea
- Paraesthesia/fasciculation near site of wound
- Acute encephalitis – aerophobia, hydrophobia, hyperactivity.
- Autonomic instability – hypersalivation, hyperthermia, hyperventilation
- Neurological status deteriorates to coma or cardiorespiratory arrest. Invariably fatal.

Pre-Exposure Vaccination (HRV)

- Three doses on days 0, 7 and 28 (the third dose can be given as early as day 21)
- See [Australian Immunisation Handbook](#) for recommendations and administration

Assessment

Potential Exposure to Rabies

- Bites, scratches, mucous membrane or broken skin exposure to saliva or neural tissues from a wild or terrestrial mammal (e.g. dogs, cats, bats and monkeys) in rabies-endemic regions (Asia, Africa, Central and South America). Includes Bali from August 2008. See WHO: [Rabies enzootic areas](#)
- Bites, scratches, mucous membrane or broken skin exposure to saliva or neural tissues from a Australian flying fox or microbat.

Management

- Post exposure management is recommended for any potential exposure
- Post exposure management should start as soon as possible following the potential exposure
- All exposures require wound care
- If the risk is determined the post exposure prophylaxis is dependent on previous vaccination
 - Unvaccinated: Human Rabies Immunoglobulin (HRIG) and Human Rabies Vaccine (HRV)
 - Vaccinated: Human Rabies Vaccine (HRV)
- Discuss patients who are immunocompromised with an Infectious Diseases Consultant

Management of Exposure

- Wash all wounds with soap and water thoroughly for approximately 5 minutes as soon as possible after the exposure
- Apply a virucidal antiseptic solution (povidone-iodine)
- Primary suture of wound is to be avoided where possible. If required it should only occur after HRIG administration.
- Consideration should be given to the possibility of tetanus and other wound infections
- Human Rabies Immunoglobulin (HRIG) and/or Human Rabies Vaccine (HRV)
 - **Advice** can be gained from the Public Health Unit/Communicable Disease Control Directorate on rabies/Australian bat lyssavirus post exposure prophylaxis

Main Numbers:

Office Hours	North Metropolitan Public Health Unit	9222 8588
After Hours/ Weekends	Communicable Diseases On Call Physician	9328 0553

Some Perth travel clinics have government funded rabies PEP on premises and often can see patients that day. Their numbers:

- The Travel Doctor Perth. Shop 9 St Martin's Arcade, 50 St Georges Tce, Perth Ph: 6467 0900
- Perth Vaccination and Travel Centre. 168 Adelaide Tce, Perth Ph: 9221 4242
- Travel Health Fremantle. 85 South St, Fremantle Ph: 9336 6630

Please see [Rabies and Australian Bat Lyssavirus Exposure Form](#), which can be faxed to the North Metropolitan Public Health Unit during office hours.

Administration of Human Rabies Immunoglobulin (HRIG)

- Immunoglobulin is to be given to unvaccinated patients
- Dosage of HRIG is 20 IU/kg
- HRIG should be given within 7 days of first rabies vaccine (ideally at the same time)
- Infiltrate as much of the dose in and around the wound, the remainder is to be given intramuscularly (IM) into proximal deltoid/lateral thigh (away from the rabies vaccine injection site)
- Do not inject immunoglobulin into the buttocks
- See [Australian Immunisation Handbook](#) for further administration information

Administration of Human Rabies Vaccine (HRV)

- Unvaccinated schedule: 4 – 5 doses over 21 – 28 days
- Vaccinated schedule: 2 doses over 3 days
- See [Australian Immunisation Handbook](#) for recommendations and administration


Nursing

Routine nursing care.

References

1. WA Department of Health. Operational Directive OD: 0543/14. Guidelines for the Public Health Management of Rabies and Other Lyssavirus (including Australian Bat Lyssavirus) Exposures and Infections
2. National Health and Medical Research Council. Australian Immunisation Handbook, 10th Edition 2013. Australian Government Department of Health and Ageing

This document can be made available in alternative formats on request for a person with a disability.

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