

Information for SA veterinary practitioners

Australian bat lyssavirus detections in SA

Australian Bat Lyssavirus (ABLV) has been detected in flying foxes (fruit bats) in SA.

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What is ABLV and recent cases

ABLV is a rabies-like virus from the family Rhaboviridae that has only been reported from Australia. It is closely related to the classical rabies virus found overseas. ABLV is endemic in Australian bats. It causes an invariably fatal encephalitis (infection and inflammation of the brain) in bats, humans and other animals.

ABLV was first reported in bats in 1996 and has since caused reported deaths of three people, two horses and multiple bats in Australia. Positive cases in bats continue to be reported around Australia every year.

ABLV is present in less than 1% of all free-living bats. ABLV infection is more common in sick, injured, or orphaned bats. Of those sick or injured bats with signs of central nervous system disease, up to one-third are infected with ABLV.

ABLV is a notifiable disease

Infection with Australia Bat Lyssavirus (ABLV) is a notifiable disease in Australia. If you suspect ABLV in an animal, please call the Emergency Animal Disease Hotline on **1800 675 888.**

How it is spread

Clinical disease occurs after a variable incubation period, which can be from 10 days to many months or sometimes even years. The virus does not survive for more than a few hours outside an infected animal.

Infected animals shed virus in the saliva. Like the rabies virus, it is presumed that ABLV is usually transmitted directly via a bite or scratch, or from contamination of a fresh wound or mucous membrane from an infected, clinically ill animal. No carrier state has been demonstrated.

There is no known risk of contracting ABLV from bats flying overhead, contact with bat urine, faeces or blood. There is no evidence to suggest ABLV could be contracted by eating fruit partially eaten by a bat. Any fruit that has been partially eaten by any animal should not be eaten as it could be contaminated by a variety of germs.

There is no significant risk of exposure from living, playing or walking near bat roosting areas.

Impact

Clinical disease is invariably fatal.

ABLV is a zoonosis that can be fatal in humans.

Potentially affected animal species

There have been three human cases, and two horse cases of ABLV in Australia. There have been no known cases in dogs or cats or other mammals to date. Horses, dogs, cats and other pets may potentially be exposed to ABLV through contact with bats, and, it is possible that exposure may lead to infection in a pet, which may, although unlikely, then transmit the disease to a human.

Potentially affected animal species include:

- bats
- flying foxes
- microbats
- insectivorous bats
- dogs (never been reported in Australia)
- cats (never been reported in Australia)
- horses
- humans

Clinical signs - bats and other species

ABLV infection produces a range of clinical signs of central nervous system disease including:

- paresis (weakness) and an inability to fly, hang properly, swallow properly or move about
- paralysis - most obvious in the hind limbs
- seizures, tremors
- unusual vocalisation or incessant licking
- changes in behaviour, including agitation, aggression and approaching people (it is rare for healthy bats to approach people).

However, infected bats may not show any symptoms of illness, with less than 20% of ABLV positive bats are thought to show signs of illness.

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Other animals infected with ABLV are expected to show clinical signs consistent with encephalitis in that species and are likely to be similar to ABLV in bats or the [signs of rabies in other mammals](#).

Handling Bats

If possible, avoid handling live bats. Only people who adequately vaccinated against rabies and are experienced in handling bats and using appropriate personal protective equipment (e.g. puncture proof gloves) should rescue or examine a bat. If a bat needs help, contact the Fauna Rescue SA bat helpline on 8486 1139 or Bat Rescue SA on 0475 132 093 for help to safely collect a live bat.

If you suspect a bat or other animal is infected with ABLV, immediately isolate the animal, limit its contact with humans and other animals and seek urgent medical advice. Also immediately report it to the **Emergency Animal Disease Hotline** on **1800 675 888**.

If an animal that has been potentially exposed to ABLV develops clinical signs suggestive of ABLV, it should be euthanased and tested for ABLV.

What to do if bitten or scratched by a bat

Infection in people is extremely rare. While there is no effective treatment once a person is clinically ill, prompt action following a bat bite or scratch may prevent clinical disease. If possible, arrange to have the bat submitted urgently to the Department of Primary Industries and Region's VETLAB for ABLV testing, by contacting the **Emergency Animal Disease Hotline** on **1800 675 888**.

If bitten or scratched by a bat, do not scrub the wound. Immediately wash the wound gently but thoroughly for at least 5 minutes with soap and running water. If available, apply an antiseptic with anti-virus action, such as povidone-iodine, iodine tincture, aqueous iodine solution or alcohol (ethanol), after washing.

If bat saliva gets in the eyes, nose or mouth, or broken skin, flush the area thoroughly with water.

Seek urgent medical advice from a doctor or nearest hospital emergency department, as soon as possible.

Post-exposure rabies vaccinations and other treatments may be necessary if you have been bitten or scratched by a bat. No person who has received post-exposure prophylaxis (vaccinations) has developed clinical disease.

Please refer to the [SA Health website](#) for information on ABLV symptoms, treatment and prevention.

Post exposure vaccination of animals

Animals usually do not mount an antibody response to ABLV infection until well into the clinical course of the disease. There is therefore no reliable ante-mortem diagnostic test for ABLV infection in animals.

Post-ABLV exposure vaccination may be undertaken in animals exposed to an ABLV-infected bat.

Rabies vaccine is a **Prescribed Vaccine under SA's Livestock Regulations**. This means that a registered veterinarian requires case-specific authorisation from the SA Chief Veterinary Officer (CVO) to use the vaccine in SA to manage Australian-bat-lyssavirus (ABLV) risk following potential exposure to ABLV.

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Veterinarians should contact the **Emergency Animal Disease Hotline** on **1800 675 888** to report a suspect ABLV exposure incident, assess the potential risk and if necessary, arrange for a permit to access the vaccine.

Please also read the separate document [ABLV Post-exposure vaccination guidelines with Nobivac inactivated rabies vaccine](#) for risk assessment, vaccination protocol and exposed animal management.

Supply and use of the Nobivac inactivated rabies vaccine is permitted in Australia under Australian Pesticides and Veterinary Medicines Authority (APVMA) permit number [PER14236](#). This vaccine contains ≥ 2 IU/mL inactivated rabies virus (Pasteur strain) as the only active constituent. Other conditions of use are also in place, such as the requirement for prior microchipping, as well as recording and filing of details. Further information on these permit conditions may be found on the [APVMA website](#).

An [Application to use Nobivac inactivated rabies vaccine](#) must be completed and approved by the SA CVO before ordering and using the vaccine for this purpose.

All veterinarians who are fully registered by a state or territory veterinary board, can order and use the rabies vaccine to prepare cats and dogs for export from Australia.

Testing and submission of samples

Animals usually do not mount an antibody response to ABLV infection until well into the clinical course of the disease. There is therefore **no reliable ante-mortem diagnostic test** for ABLV infection in animals.

Whenever reasonable, only rabies-vaccinated persons should handle, euthanise, or remove the head or brain of a bat or other ABLV-suspect animal. A whole bat may also be submitted.

Take all reasonable steps to avoid being bitten or scratched and wear appropriate personal protective equipment.

If bitten or scratched, immediately wash (do not scrub) the wound, apply a disinfectant, and seek urgent medical advice.

If testing is urgent (i.e. if a human or animal has been bitten or scratched by a bat), contact the PIRSA's VETLAB on (08) 8202 3300 or the **Emergency Animal Disease Hotline** on **1800 675 888**.

Double bag each bat/animal. Place the bat/animal in a plastic bag, then place the bag containing the bat/animal in a second bag. Refrigerate, rather than freeze, fresh animal tissues.

A completed laboratory submission form with owner and animal details and contact numbers must be supplied.

Testing of the bat is at no cost to the patient/owner/clinic.

Further Information

- [SA Health website](#) for information on ABLV symptoms, treatment and prevention.
- Queensland Government's [Australian Bat Lyssavirus overview](#).
- Queensland Government's [ABLV information for veterinarians](#).