Australian bat lyssavirus information for veterinarians

July 2016

Queensland Government

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Purpose

This information is specifically intended to assist veterinarians in the safe management of incidents involving contact between domestic animals (cats or dogs) and bats with the resulting potential for these animals to acquire Australian Bat Lyssavirus infection (ABLV).

Scope

This information is intended for use by veterinarians to help them manage the situation when a member of the public presents a dog or cat with a clinical history of actual or suspected physical encounter with a bat. It provides information that relates to:

- Australian bat lyssavirus disease and epidemiology
- practical information for handling bats and submitting for laboratory testing
- the options to be presented to the pet owner if the bat is not available or tests positive for ABLV
- the use of inactivated rabies vaccine to protect the pet, including the associated permit, Chief Veterinary Officer (CVO) authorisation and evaluation of the response to vaccination.

Reference information

General

ABLV is a member of the genus Lyssavirus, family Rhabdoviridae. The Lyssavirus genus contains seven genotypes of which ABLV has been placed in a distinct group - Genotype 7. While closely related to classical rabies virus (Genotype 1), ABLV is distinct from it.

Consequently Australia has a current international health status through the World Organisation for Animal Health (OIE) of 'rabies-free'. However, wherever specific information on the epidemiology of ABLV is lacking, classical rabies is used as a model.

ABLV was first identified in 1996 by researchers at the Queensland Government Animal Research Institute following isolation of the virus from samples collected from a black flying fox which had been found sick at Ballina. It has since been found in several species of Australian flying foxes and insectivorous bats over a wide geographic distribution.

ABLV is a recognised zoonosis and human health is an overriding factor in all incidents involving potential ABLV infection of pet animals and their owners.

There have been three recorded cases of fatal encephalitis due to ABLV in people: in 1996 and 1998, both in Queensland. Both had a history of exposure to bites or scratches from bats; one case was caused by a flying fox (a megabat) and the other by a yellow-bellied sheath-tail bat (a microbat).

National policy

National policy and approach to ABLV is presented in the AUSVETPLAN disease strategy for ABLV. Comprehensive information is provided for the management of animals that have potentially been infected with ABLV.

It is presumed that, if an animal of a non-bat species develops clinical disease due to ABLV infection, that animal has the potential to transmit ABLV to humans and other animals.

This document provides information based on AUSVETPLAN for the management of bat/animal incidents in Queensland.

Categories of risk

Bats can be categorised based on their potential to transmit ABLV to humans and other animals (i.e. potential for an infected bat to have infectious contact with a human or other animal). These categories are listed from highest to lowest urgency for action:

Category 3 (high human health risk). Bat that is known or reasonably suspected to have had potentially infectious contact with a human (e.g. has bitten or scratched a person). Within Category 3, bats with clinical signs suggestive of ABLV are of highest risk.

Category 2 (high animal health risk, medium human health risk). Bat that poses a potential risk of infection to humans. Disease investigation and exclusion testing is recommended due to either:
– history or clinical signs suggestive of ABLV without a history of a potentially infectious contact with a human (Category 2a)
– history of known or suspected contact with another animal (other animal potentially exposed to ABLV via bat) (Category 2b).

Category 1 (low risk). Bat that is neither Category 2 nor Category 3 — that is, bat that has no history of known or suspected contact with another animal or person and for which the index of suspicion for ABLV infection is low (e.g. no clinical signs consistent with ABLV).

Legal considerations

ABLV is listed as category 1 restricted matter in schedule 2 of the *Biosecurity Act 2014* (the Act). The Act requires a person who knows or suspects clinical disease due to ABLV infection to advise an inspector as soon as practicable but within 24 hours. A person does not need to advise of a suspicion of ABLV simply by virtue of the animal being a bat, or if the animal (e.g. a dog) has simply had contact with a bat.

However, if a person believes or ought to believe that a bat or other mammal is infected with ABLV (e.g. due to clinical signs or behavioural changes suggestive of ABLV), they must advise an inspector and take all reasonable and practical measures to prevent or minimise the risk of transmission to a person or other animal. The current APVMA (Australian Pesticides and Veterinary Medicines Authority) permit, PER14236, indicates the permitted use of rabies vaccine in Australia.

Epidemiology

To date, the natural reservoir of ABLV in Australia remains bats - no other reservoir in Australia has been detected. Serological evidence suggests a wide geographical distribution in bats in Australia (Field 2005 quoted in AUSVETPLAN ABLV disease Strategy Manual Section 1.3.2).

ABLV has been found in both the megabat species (flying foxes) and the microbat species in Australia; antibodies to ABLV have been found in five of the six families of bats in Australia (surveillance of the sixth family was limited), and all individual bats should be regarded as capable of being infected and infectious.

Bats showing clinical disease caused by ABLV can present with a range of non-specific clinical signs that may include one or more of the following:

- Overt aggression,
- Paresis and paralysis
- Seizures, tremors and weakness
- Respiratory difficulties, change of voice
- On ground or low in a tree with inability to take off or to fly in a normal manner
- Bats in unusual locations during the daytime. i.e not in normal roosts

Based on testing to date, there is a much higher likelihood of finding ABLV in sick, injured or orphaned bats (5 - 10%) compared to the normal wild population (< 1%). Of bats that are sick or can't fly, ABLV may be found in up to 30% of those showing central nervous system signs.

ABLV is a zoonotic disease and has been confirmed as causing the death of two people. There is no field evidence in Australia to date that demonstrates that ABLV infection naturally occurs in other mammals, except bats and man.

Research on ABLV has not yet addressed whether it is possible for the reservoir host (bats) to infect other mammals (except man) and for those animals to go on to infect other animals so there is no current evidence to say that ABLV could or could not spill over to terrestrial species and then be transferred on to humans.

A preliminary study conducted at the Australian Animal Health Laboratory (AAHL) in which dogs and cats were experimentally infected with ABLV was inconclusive. The animals sero-converted but did not demonstrate overt clinical disease during the (short) duration of the study. It is not clear how much these results can be extrapolated to natural infection of animals (AUSVETPLAN ABLV Disease Strategy Manual, Section 1).

There are documented reports overseas of spillovers of bat-variant rabies and European bat lyssaviruses to terrestrial species.

There is no effective treatment for ABLV once clinical signs are observed. Prevention of clinical disease is the preferred option through pre-exposure vaccination or post exposure prophylaxis. Both these approaches revolve around the use of rabies vaccine.

An important observation is that ABLV-infected bats have a higher likelihood of being present much closer to the ground than normal and with less ability to fly to safe areas when challenged.

Consequently any bat-animal (including pets) interaction is potentially serious as these animals are interacting with the sub-population of bats where there is the greatest likelihood of finding ABLV.

Reports are regularly received by Biosecurity Queensland of domestic pets, particularly dogs or cats, coming into close physical contact with bats, for example, through chasing and catching bats and/or ingestion of bats. This close contact forms a theoretical risk of transmission of ABLV to dogs and cats and, theoretically, to their owners. Currently this chain of transmission is rated as remote, but possible.

Actions following an animal bat exposure

Notify Biosecurity Queensland

There is a legal requirement to notify Biosecurity Queensland of all suspected ABLV incidents (see section 3.4).

Please contact:

- 13 25 23 (business hours)
- 1800 675 888 (any time)
- a Biosecurity Queensland veterinary officer.

Biosecurity Queensland takes a precautionary approach to potential exposures to ABLV while scientific knowledge continues to be accumulated. This precautionary approach assumes that possible exposures between animals and bats may transmit ABLV to the in-contact animals.

Further it is assumed that an animal infected with ABLV may progress to develop rabies-like clinical disease and may then pose a risk of transmitting ABLV to humans and other animals.

Obtain the history

Details should be obtained about the incident when the client's animal came in contact with the bat.

Any observations about the clinical condition of the bat should be recorded. If the bat appeared ill at the time of the incident it is more likely to be infected with ABLV. Clinical signs associated with ABLV infection of bats are described in section 3.5.

It should also be established whether the bat is dead or still alive. If still alive it becomes a priority to provide advice on safe handling and personal protection.

If the client reports that they themselves have been scratched or bitten by a bat, Queensland Health must be informed of this potential exposure to ABLV.

Reporting potential human exposure to Queensland Health

When a human/bat interaction has occurred, the people involved should be advised to immediately ring their local Population Health Unit (see Appendix 1).

These bats are described as C3 (Risk Category 3).

Advice should be provided to isolate the bat or avoid further contact and to wash the affected area with soap and water (see section 4.4.4).

If the bat is available it should be safely kept for testing. Queensland Health is responsible for testing C3 bats.

Retrieval and euthanasia of the bat

The advantage of testing the bat for ABLV is that a negative result will exclude the risk of ABLV transmission to other animals or humans.

Testing is best conducted on the brain tissue, so it is important to retrieve the head. However other nervous tissue may be useful. Therefore whatever is left of the bat should be submitted.

People are at risk of contracting ABLV if they handle bats without due precautions. Rabies virus and other lyssaviruses are usually transmitted to humans via bites or scratches which provide direct access of the virus in saliva to exposed tissue and nerve endings. Exposure to virus in bat saliva via mucous membranes (eyes, nose, mouth) and open wounds (bites, sores) can also occur.

Handling a dead bat

If the bat is dead, it should be collected and placed inside a secure and waterproof container.

Exposure of skin or mucous membranes to the secretions or excretions of the bat must be avoided. Handling the carcass remotely (e.g. using a garden fork, spade or other implement), inverting a thick plastic bag over the carcass, and using rubber gloves are recommended methods of preventing direct exposure.

Handling a live bat

Live bats should only be handled by people who have received rabies vaccination.

Members of the public are strongly advised not to attempt to handle an injured, unwell or aggressive bat. They should contact a Department of Environment and Heritage Protection (DERM) registered bat carer who can then transport these bats to a private veterinarian who normally deals with wildlife. Subject to the veterinarian's assessment of possible ABLV, the bat can then be euthanased before being submitted to a veterinary laboratory for testing.

AUSVETPLAN states that 'Animals potentially infected with Australian bat lyssavirus should be approached with extreme caution. ….Only experienced bat handlers who have been vaccinated for rabies should attempt to capture and care for sick or injured bats'.

The following precautions should be taken when handling bats:

- Only vaccinated people with titres >0.5IU/ml should handle bats
- Take all reasonable steps to avoid being bitten or scratched
- Prevent mucous membrane exposure (eyes/mouth)
- Wear appropriate protective clothing, long sleeves, long pants, shoes and double gloves (nitrile – puncture resistant)
- Where possible have a vaccinated, experienced bat handler hold the bat when conducting a clinical examination or euthanasia.

Useful contact details include:

- Department of Environment and Heritage Protection http://www.ehp.qld.gov.au /

Euthanasia of a bat

Bats can be euthanased using pentobarbitone solution injected intra-peritoneally.

Storage or disposal of a bat carcass

Carcasses of bats to be tested should be submitted to the laboratory as soon as practicable to minimise post-mortem decomposition.

Whether collected as dead or euthanased, these carcasses should be refrigerated (but not frozen) until submission.

If a client elects not to submit a dead bat for testing, the carcass must be disposed of hygienically, either in routine clinic biological waste, deep burial where dogs cannot dig them up, or submitted to a special local council service that may be available.

Emergency measure if bitten or scratched by a bat

If bitten or scratched, proper cleansing of the wound is the single most effective measure for reducing transmission:

- Do not scrub the wound.
- The wound should be immediately washed with soap and water for at least 5 minutes.
- An antiseptic with anti-viral action, such as povidine-iodine, iodine tincture, aqueous iodine solution or alcohol (ethanol) should be applied after washing.
- If saliva enters the eyes, nose or mouth, the area should be flushed thoroughly with water.
- Contact your Doctor or Queensland Health immediately (see Appendix 1 for contact details).

Laboratory testing

In cases of known or probable exposure of an animal to a bat (C2 bat) or where a bat shows clinical signs suggestive of ABLV, submission of the bat for ABLV exclusion testing should be to a Biosecurity Queensland laboratory.

Where there has been known, possible or probable human exposure to ABLV from the bat (C3 bat), submission of the bat must be to the Queensland Health laboratory and needs to be arranged through contacting the relevant Queensland Population Health Unit (contact details in Appendix 1).

The standard test for ABLV in a bat submitted after an animal/bat incident is the fluorescent antibody test (FAT). This is ideally conducted on fresh brain impressions. However, other nervous tissue can be used if the head of the bat is not available.

Other tests may be used during research or to type the ABLV virus.

Submission of the bat for testing

Packaging and transport of dead bats does not require a permit from EHP but any such transport does need to meet relevant transport and packaging guidelines.

Samples can be delivered to the Specimen Receipt office at Coopers Plains between 8am and 5pm on weekdays. The delivery address is:

Specimen Receipt (Loading Dock 12)
Biosecurity Sciences Laboratory
Health and Food Science Precinct
39 Kessels Road
Coopers Plains Qld 4108

The BSL phone number is 07 3708 8762

Email address: bslclo@daf.qld.gov.au.

If the incident occurs out of hours, people should contact the Emergency Animal Disease Hotline on 1800 675 888 to arrange testing.

Packaging instructions for sending bats include:

- Ensure safety of all personnel involved.
- Samples must be double-bagged.
- The bat must be in a secure primary container such as a strong polythene bag. Then place in a secondary container, a screw top plastic container or a zip lock bag.
- Use absorbent material in the secondary container to soak up any leaked fluid.
- Place the secondary container in a polystyrene box with cold bricks.
- Complete a specimen advice sheet (SAS) which can be downloaded from the Website www.biosecurity.qld.gov.au
- Place the SAS on the outside of the polystyrene box so it can be read before the samples are opened.

Actions if the bat tests negative for ABLV

When the bat tests negative for ABLV, there is no risk to the in-contact animal and the case is closed.

Situations have occurred where the animal may have been bitten by more than one bat. Therefore the risk of exposure may not be resolved by the testing of only one bat. In this situation the veterinarian may decide to proceed according to section 6.

Actions if the bat tests positive for ABLV or is not available

If the bat is available and tests positive or is not available for testing, this means that there is a real risk of the pet owners or other in-contact humans contracting ABLV infection from the pet. To date, transmission from an affected pet to a human has never been reported. Public health guidance is that the risk of transmission of ABLV from a dog or a cat to a person is very low but the risk exists. If such transmission was to occur, the potential outcomes are obviously extremely serious as both reported cases of ABLV infection in humans have been fatal.

Advice to the owner should include the following options:

Euthanasia

To avoid any further risk of humans contracting ABLV infection from the pet, the owner has the option of authorising euthanasia of the pet (especially in those cases where it can be established that physical contact between the animal and the bat definitely occurred.)

Monitor the animal for up to 2 years

The pet owner can keep the animal at home but should be advised to observe their pet closely for one to two years for any changes in behaviour or signs of ill-health (due to the possible long incubation period). These should be immediately reported to Biosecurity Queensland. The owner needs to also understand that taking no action does nothing to lower the potential risk of ABLV infection and that, if clinical signs suggesting ABLV disease are reported, it is likely to be recommended that the animal be euthanased and samples taken for examination.

Vaccination

One option is a course of vaccination of the affected pet with inactivated rabies vaccine as soon as possible after the contact with the bat in order to mitigate the risks of clinical ABLV infection. This mirrors the current public health recommendation for post-exposure treatment of people against ABLV infection through the use of rabies vaccine on the basis of the limited available animal data and clinical experience supporting its use.

For the costs associated with vaccination, please see section 8.

Vaccination of the animal with rabies vaccine

General advice

When a positive is received or when a bat is not available for testing, the owner is offered the option of vaccinating the animal/s with rabies vaccine. This is conditional on the understanding that Biosecurity Queensland will determine further action required should the animal/s develop clinical signs of ABLV infection at any time.

It should be emphasised to the owner that, if they are considering the vaccination program, it should be commenced as soon as possible after the date of the incident during which exposure to the bat occurred.

The incubation period for ABLV is thought to be of the order of 28 – 60 days but can be shorter or much longer.

This primary objective of the Post-Exposure Prophylaxis (PEP) vaccination schedule is to address the risk of exposure to ABLV. The PEP protocol specified below will not reliably avert expression of clinical disease in the dog or cat until 21 days post vaccination. After day 21 post vaccination, however, it is expected to reliably avert expression of clinical disease in the dog or cat and, therefore, the risk of transmission to humans. However, it is recommended that owners monitor the animal closely for 60 days post-vaccination.

Therefore, the earlier the vaccine is given to the dog or cat after the potential exposure to ABLV via the bat, the less likely the dog or cat is to develop the disease before the PEP protocol can take effect and lower the risk to both dog or cat and the humans associated with the animal.

If the private veterinarian suspects ABLV infection of the animal/s at any time, Biosecurity Queensland should be urgently contacted for advice on the appropriate course of action.

The owner is responsible for:

- Observing the dog or cat closely for any changes in behaviour occurring for 60 days following vaccination and return the animal to the veterinarian for examination should there be any concerns.
- Presenting their animal to their private veterinarian at the required times to meet all the requirements of the vaccination and sampling program.
- Complying with the requirement to microchip the animal/s.
- Payment for the vaccine and first two vaccination consultations (see section 9).

Rabies vaccine

Vaccination with vaccine protective against rabies is used to protect both people and animals against ABLV. From the AUSVETPLAN Australian Bat Lyssavirus Disease Strategy Section 1.5, information to date supports that cross protection occurs against ABLV from rabies vaccine. Both people and animals exposed or potentially exposed to ABLV should undergo post exposure prophylaxis (PEP) which centres on the use of rabies vaccine. Queensland Health is responsible for PEP in people; Biosecurity Queensland in conjunction with private veterinarians is responsible for PEP in animals.

Permit PER14236

Veterinarians need to be aware that Nobivac Rabies Inactivated Rabies Vaccine is an unregistered veterinary chemical product. Its use in ABLV incidents is covered by an Emergency Use Permit, PER14236, issued by the Australian Pesticides and Veterinary Medicines Authority (APVMA) and held by the Australian Chief Veterinary Officer, Commonwealth Department of Agriculture, Fisheries and Forestry.

PER14236 also covers emergency use of this inactivated rabies vaccine to vaccinate 'animals held in Australia in the event of a rabies outbreak'. A condition of the permit is that 'Persons who wish to prepare for use and/or use the products for the purposes specified in this permit must read, or have read to them, the permit particularly the information included in DETAILS OF PERMIT and CONDITIONS OF PERMIT'.

A copy of PER14236 can be obtained from the APVMA web-site (http://permits.apvma.gov.au/PER14236.PDF).

Application by veterinarian to obtain and use rabies vaccine

The vaccination program must be administered by a private veterinarian registered in Queensland.

The veterinarian must complete and submit the form "Application to Chief Veterinary Officer: For authorisation to use of Nobivac rabies inactivated rabies vaccine" (see Appendix 2).

Authorisation by Chief Veterinary Officer

PER14236 includes that veterinarians authorised in writing by the State/Territory Chief Veterinary Veterinary Officer (CVO). Biosecurity Queensland will provide the CVO authorisation for the nominated veterinarian after the veterinarian submits an application (refer Appendix 2). Once signed, a copy of the CVO authorisation will be faxed back to the nominated veterinarian.

The veterinarian should then fax the signed authorisation to a veterinary wholesaler who holds an account with the Australian supplier of the unregistered Nobivac Rabies Inactivated Rabies Vaccine, Intervet (Australia) Pty Ltd.

Procuring the inactivated rabies vaccine

The unregistered Nobivac Rabies Inactivated Rabies Vaccine is available from the Australian supplier following presentation of the Chief Veterinary Officer authorisation.

Intervet (Australia) Pty Ltd
91-105 Harpin St
Bendigo Victoria 3550
Phone: 1800 033 461
Fax: 1800 817 414.

The order should be placed through the veterinarian's usual veterinary wholesaler because Intervet has existing accounts for the wholesalers. The inactivated rabies vaccine will still be sent directly to the veterinary practice ordering it.

The inactivated rabies vaccine will only be dispatched from Monday to Wednesday to ensure that the vaccine arrives at the destination practice in good condition by avoiding possible problems encountered during transport leading up to the weekend.

The vaccine must be ordered before 1:00 pm Monday to Wednesday to ensure that it can be dispatched that evening.

An overnight courier service is engaged but Intervet does not have control over the transportation and so is unable to guarantee next day delivery. It is therefore best to consider two days for delivery when making the appointment for the client to attend the practice for vaccination.

The vaccination protocol, as set out below, requires two vaccinations 5 -7 days apart. Therefore, it is advisable to order both doses from Intervet (Australia) Pty Ltd at the outset.

Safety when administering the vaccine

The private veterinarian engaged to administer the inactivated rabies vaccine to the pet as well as any assistants are advised to wear suitable long-sleeved protective clothing and to use restraint measures as appropriate to avoid being bitten or scratched by the pet animal.

Caution should also be exercised in relation to avoiding contamination of unhealed cuts or abraded skin.

Vaccination protocol – Post-exposure Prophylaxis (PEP)

At the first PEP consultation (day 0), the first dose of rabies vaccine is given to the animal/s. A blood sample should be taken, the serum removed to a vial and frozen.

A repeat vaccination with rabies vaccine is given to the animal/s at day 5 – 7.

A follow-up blood sample should be collected at day 28 post vaccination (or up until day 35) and the serum again collected and frozen. The paired sera will be submitted to the Biosecurity Sciences Laboratory for forwarding to the Australian Animal Health Laboratory (AAHL).

The instructions for submitting the serum samples are:

- The standard Specimen Advice Sheet (SAS) and Sample Numbering Sheet, as well as the address of the laboratory, are available on the Biosecurity Queensland Website www.biosecurity.qld.gov.au
- If there are any questions regarding the actual samples, the Biosecurity Sciences Laboratory (BSL) Laboratory Liaison Officer is contactable on 3708 8762. Suitable courier services to consider using for the samples include TOLL, Fastway Couriers or Yellow Couriers.
- The SAS should specify the species of animal and be marked clearly as ‘Post-bat exposure vaccination. Paired samples for serology’. Be careful to identify each sample with the date of collection and the day relative to vaccination e.g. ‘day 0’ (day of first vaccination), ‘day 28’ (28 days post first vaccination).
- The laboratory will forward the serology results to the General Manager, Animal Biosecurity, for interpretation of the results. This interpretation and a contact phone number will accompany the results supplied to the submitting veterinarian by the laboratory as per normal practice.
- The private veterinarian will then be able to pass on the results to the client.

The primary purpose of the serum sampling is to monitor the response to vaccination. The day 0 serum sample is necessary to allow comparison of titre with the day 28 sample to demonstrate the level of response to the vaccine. An appropriate rise in titre between day 0 and day 28 will provide a basis for declaring the dog ‘safe’ to stay at home and no longer a risk to others.

IMPORTANT: Neither a positive nor a negative titre at day 0 will indicate that the dog or cat is either more or less likely to develop clinical ABLV disease. The vaccination schedule still must be followed and an elevated titre in the day 28 sample relative to the day 0 sample is still sought. Because a positive titre on day 0 has no value in predicting the likelihood of disease, the serum samples will be forwarded to AAHL and analysed as paired sera. It follows that this course of action will be maintained even in circumstances where the delay in presenting the animal for vaccination and sampling on day 0 of the vaccination schedule has been sufficiently long such that a positive titre might be reasonably expected if the bat itself had been infected with ABLV. Once a period of 60 days has elapsed post vaccination, it is expected that vaccine induced protection will prevent disease occurring from that exposure.

Table 1 Post-exposure prophylaxis program

First PEP consultation	Day 0	• **Vaccination** with 1ml dose of Nobivac Rabies Inactivated Rabies Vaccine (intramuscular or subcutaneous injection). • **Microchip** animal if not already microchipped. • Advise BQ of new microchip number by fax. • Ta ke **first blood sample**, collect serum, label and freeze. • Advise owner to monitor animal closely for 60 days.
Second PEP consultation	Day 5 - 7	• **Repeat vaccination** with 1ml dose of Nobivac Rabies Inactivated Rabies Vaccine (intramuscular or subcutaneous injection)
Third PEP consultation	Day 28 - 35	• Take **second blood sample**, collect serum, label and freeze. • Send paired sera to a Biosecurity Queensland laboratory for forwarding to AAHL. • Specimen Advice Sheet should be clearly marked 'Post-bat exposure vaccination. Paired samples for serology'.

Animals showing clinical signs consistent with ABLV

Biosecurity Queensland will be responsible for the investigation of animals exhibiting clinical signs consistent with ABLV infection.

Animals exhibiting classical rabies like signs, particularly if the animal is aggressive or unmanageable, will be euthanased. Post mortem examination will be conducted to determine the cause of the signs.

Manageable animals may be kept in a secure quarantine facility to allow safe monitoring of clinical signs and any testing required.

Responsibility for costs

The owner will be responsible for costs associated with:

- collecting,and submitting the bat to the laboratory
- the first two PEP consultations
- the rabies vaccine
- microchipping of the animal
- euthanasia of the animal if the owner elects that course of action.

Biosecurity Queensland will cover the following costs:

- initial testing of the bat/s for ABLV
- the third PEP consultation when the second blood sample is collected
- the transport of the serological samples to the nearest Biosecurity Queensland veterinary laboratory
- serological tests on the serum samples
- investigation of animals which have had a confirmed exposure to ABLV and exhibit clinical signs consistent with ABLV infection.

To claim payment from Biosecurity Queensland, please make out a tax invoice to 'Department of Agriculture, Fisheries and Forestry' and send to:

Department of Agriculture, Fisheries and Forestry
Biosecurity Queensland
Attention - Lawrence Gavey

PO Box 102
Toowoomba QLD 4350

Abbreviations

AAHL	Australian Animal Health Laboratory
ABLV	Australian bat lyssavirus
APVMA	Australian Pesticides and Veterinary Medicines Authority
BSL	Biosecurity Sciences Laboratory
CVO	Chief Veterinary Officer
CCEAD	Consultative Committee on Emergency Animal Diseases
PEP	Post exposure prophylaxis

Appendix 1 Queensland Health contact numbers

Public Health Units

METRO NORTH
Windsor 3624 1111
Redcliffe 3142 1800

METRO SOUTH
Coopers Plains 3000 9148

GOLD COAST
Gold Coast 5668 3700

WEST MORETON
Ipswich 3413 1200

SOUTH WEST
Charleville 4656 8100

DARLING DOWNS
Toowoomba 4631 9888

SUNSHINE COAST
Maroochydore 5409 6600

CENTRAL QUEENSLAND
Rockhampton 4920 6989

WIDE BAY
Hervey Bay 4184 1800
Bundaberg 4303 7500

CENTRAL WEST
Longreach 4658 4700

NORTH QUEENSLAND
Cairns and Hinterland 4226 0000
Mackay 4885 6000
Mt Isa 4744 4444
Townsville 4433 1111

Communicable diseases branch

3328 9724 or 3328 9728

Appendix 2 Application to Chief Veterinary Officer

For authorisation to use Nobivac rabies inactivated rabies vaccine

This form can be downloaded from the DAF website.