

Rabies

Background Information

Rabies is an acute viral infection of the brain and spinal cord, which is almost always fatal. The virus is transmitted in saliva via an animal bite, lick or scratch. 'Classical rabies' is usually caught from a dog while 'bat rabies' is caught from a bat.

Organism

Classical rabies – Rabies virus

Bat rabies – European bat lyssavirus 2 (EBLV-2)

Incidence and Transmission

Classical rabies virus was eliminated from the UK in the early 20th century, but there is still a risk from imported animals in quarantine facilities. There is still an occasional human classical rabies case in the UK, but these are acquired abroad.

EBLV-2 was first found in Daubenton's bats in the UK in 1996 and in 2002 a bat handler in Scotland died.

The virus is generally present in saliva from an infected animal and is transmitted via an animal bite, scratch or lick, generally from a dog in the case of classical rabies and from a bat in the case of bat rabies.

There is no evidence of person to person spread, although this is a theoretical possibility.

Occupations and processes where classical rabies may present a risk

Occupational exposure to rabies virus may occur in those who:

- are in contact with saliva from infected animals – the main risk in the UK is from animals in quarantine, particularly dogs;

Occupations where there may be a risk of occupationally acquired classical rabies include:

- workers at quarantine kennels;
- veterinary surgeons;
- port health inspectors and HM Customs officers;
- local authority animal inspectors; and
- dog wardens – illegally imported dogs.

Occupations and processes where bat rabies may present a risk

Occupational exposure to EBLV-2 may occur in those who:

- are in contact with saliva from infected Daubenton's bats; or
- are in close contact with roosting bats.

Occupations where there may be a risk of occupationally acquired bat rabies include:

- bat handlers; and
- demolition/building renovation/building conservation workers – may disturb a bat roost.

Clinical Information

The incubation period is very variable – it is generally 1–3 weeks but it may be several months or years before symptoms develop. Initial symptoms are generally flu-like, with fever and headache and there is often pain, unusual tingling or burning sensation at the site of infection. The virus spreads to the brain and spinal cord and causes encephalitis (inflammation), leading to convulsions and eventually death.

Anyone who has been bitten, scratched or licked by a bat or a quarantined animal should seek immediate medical attention.

The rabies vaccine and rabies immunoglobulin treatment can be given immediately, and are generally effective if given before any symptoms develop. The disease is almost always fatal once symptoms appear.

Control

The following control measures reduce the risk of infection:

- Wear protective gloves when handling animals in quarantine, particularly dogs.
- Wear protective gloves when handling bats.
- People with a high risk of occupational exposure (eg workers in quarantine kennels and bat handlers) should be vaccinated against rabies.
- Wash the site of an animal bite, scratch or lick with soap and warm water and seek immediate medical advice.

Further Information

[Public Health England – Rabies](#)

[NHS Choices – Rabies](#)

[Bat Conservation Trust – Rabies](#)

[WHO – Rabies fact sheet](#)

