Rabies

Rabies is a disease fatal to all mammals, including humans, if no treatment is received. Whilst the UK has been rabies-free (classical rabies) since 1922 it must be remembered that the disease is present in many other countries throughout the world and consequently the strict legal controls on bringing animals into the UK must be adhered to in order to prevent rabies being brought into the country. Possibly the largest risk for rabies entering the UK would be through an infected animal imported into the country illegally.

The symptoms of rabies can vary greatly but typical clinical signs would include sudden behavioural changes and progressive paralysis leading to death. There are many different strains of rabies but all are notifiable. Rabies cannot be conclusively diagnosed through these clinical signs alone and would need laboratory tests to be confirmed.

In this guide

What are the possible impacts of the disease?

The disease has the potential to have a serious economic and social effect due to the amount of control and containment resources required in an outbreak situation and the potential effects upon animal and public health. Humans are potentially susceptible to all strains of rabies and consequently when considering a response to a rabies outbreak the strain of rabies found will have a significant bearing on determining what form of response is undertaken.

Broadly speaking, there are two principal types of incident to be considered:

- rabies is detected and the incident is deemed to be contained - for example, in quarantine facilities
- rabies is detected and the index case cannot be established

In both instances the UK government and its operational partners will, amongst other things:

- aim to eradicate the disease
- protect public health
- minimise the number of animals that have to be destroyed, whether for control purposes or to safeguard animal welfare
- minimise the impact on the economy, the public and the environment

Clinical signs

Rabies virus infection can cause acute encephalitis in mammals, including humans. The virus is usually spread by saliva from the bite of an infected animal. Clinical signs include paralysis and behavioural abnormalities leading to a painful death. Once clinical signs of the disease develop it is invariably fatal. In some cases, however, an animal may die rapidly without demonstrating significant clinical signs.

There are many different strains of rabies. These include classical rabies, European bat strain, Baltic strain, Arctic strain and wildlife strain, with each strain having different levels of cross-species transferability.

What happens when a suspect animal is found?
Rabies is a notifiable disease and therefore anyone who suspects rabies in an animal on whatever premises must by law report it to their local Animal Health and Veterinary Laboratories Agency (AHVLA) office.

An investigation would then be instigated by a veterinary inspector (VI) who may rule out suspicion of rabies when they visit the premises and the investigation would be ended at this point. If the VI cannot rule out rabies at this stage then the animal will become a suspect animal (see below). If the VI deems it very likely that the animal has contracted rabies then they may declare the premises as an infected place and impose movement restrictions.

Any decision to destroy the suspect animal will be discussed between the VI and the owner. If the country of origin has a disease-free rabies status then destruction may not be compulsory. However, the VI may order destruction if the animal is suffering or distressed. Should there be any chance of human infection - for example, a human having been bitten by the suspect animal - the VI would order destruction of the animal in order to confirm or rule out a laboratory diagnosis of rabies.

The tracing of possible disease spread, contact animals and any public health risk would also be assessed at this time.

What happens if the disease is confirmed?
The rabies virus cannot live for long outside the body of its host. Consequently, premises need only be considered infected until the infected animal has been removed - for example, to quarantine for observation, or destroyed - and the property has been disinfected and any contact animals have also been dealt with in the same way. Animals must not be moved on/off an infected premises unless specifically licensed.

If the suspect animal is already dead, or the veterinarian and/or owner decide on the humane destruction of the animal, or if the animal dies while under observation, the carcase will be transported immediately to the relevant laboratory for appropriate diagnostic testing. When results are negative for a suspect case, all contact animals will continue to remain in isolation until further results of more sensitive tests are available, usually within two to three days.

If an initial laboratory result is positive a local disease control centre (LDCC) would be established to coordinate the management of the outbreak.

There is a large range of possible scenarios that the LDCC may have to coordinate for a rabies outbreak or incident, from a contained case of an individual pet animal, to the highly unlikely worst case scenario of a nationwide outbreak involving both wildlife and domestic animals.

The most likely scenario for a rabies incident will be an individual infected pet. This is likely to be identified quickly with its source of infection/exposure history capable of being rapidly ascertained. In this scenario, the control and containment measures required would be very restricted and localised, likely to be limited to the infected animal and any other contact animals.

If disease were to spread to other domestic animals, either within the same locality or more widely across the country, then a wider range of controls would be required. For example

leashing/muzzling or vaccination of pets at risk. In the unlikely circumstance that the disease spreads into wildlife, a broader range of wildlife controls - for example, vaccination of foxes - would be instigated alongside tighter restrictions on movements of domestic pets, and requirements for vaccination, muzzling and leashes.

More detail on the management of a rabies outbreak can be found on the Defra website.

Can people catch the disease?
Yes. Humans can contract the disease.

The World Health Organisation states that every year more than 15 million people worldwide receive a post-exposure vaccination to prevent the disease. This is estimated to prevent hundreds of thousands of rabies deaths annually.

Humans are likely to be infected following a deep bite or scratch by an infected animal. Dogs are the main host and transmitter of rabies. However, transmission can also occur when infectious material - usually saliva - comes into direct contact with human mucosa or fresh skin wounds.

Could it affect the food I eat?
Ingestion of meat or other tissues from animals infected with rabies is not a source of human infection.

What can be done to reduce the risks?
The island status of the UK means that it is unlikely that rabies will introduced through wildlife. In addition there are very strict legal controls in place that regulate the entry of animals into the UK. Pet dogs, cats and ferrets entering the UK are subject to rules relating to the movement of pets, of which more detail can be found on the Defra website.

Whilst rabies in humans in the UK is not prevalent, this can also be eliminated through ensuring adequate animal vaccination and movement controls, educating those at risk, and enhancing access of those bitten to appropriate medical care.

It is in everybody's interest to adhere to current controls regulating the entry of animals into the UK.

More information can on rabies prevention in humans can be found on the NHS website.

Legislation applicable to rabies
The Rabies (Importation of Dogs, Cats and Other Mammals) Order 1974 prohibits entry of rabies-susceptible animals into Great Britain unless issued with an import licence by the AHVLA.

Defra has produced guidance on these controls for rabies-susceptible animals.

The Non-Commercial Movement of Pet Animals Order 2011 allows that pet dogs, cats and ferrets are not subject to the requirements of the Rabies (Importation of Dogs, Cats and Other Mammals) Order 1974, providing that certain rules are adhered to - for more information see the above link for movement of pets.

All animal health rabies legislation is provided by the exercise of powers conferred on ministers by the Animal Health Act 1981. Under the Animal Health Act 1981, the illegal importation of animals is an offence punishable by unlimited fines and imprisonment.

Please note
This leaflet is not an authoritative interpretation of the law and is intended only for guidance. Any legislation referred to, while still current, may have been amended from the form in which it was originally enacted. Please contact us for further information.

Relevant legislation
Rabies (Importation of Dogs, Cats and Other Mammals) Order 1974
Animal Health Act 1981
EU Regulation (EC) No 998/2003 on the animal health requirements applicable to the non-commercial movement of pet animals
Non-Commercial Movement of Pet Animals Order 2011