



NOTIFIABLE DISEASES

Aim

The aim of this guide is to describe 'notifiable' diseases, for which there is a legal responsibility to act, and to outline what steps need to be taken if such a disease is suspected. This guide also aims to provide information on diagnosing and preventing infections in order to safeguard the health of humans, livestock, the wild deer population and other wild animals.

Notifiable diseases

The text and table overleaf describe the main 'notifiable' diseases, for which there is a legal responsibility to act.¹

- 1 Inform the Divisional Veterinary Manager² (DVM) immediately where any of the following diseases are suspected.
- 1 The Tuberculosis (Deer) Order 1989 makes it a legal requirement to notify suspicions of TB to the DVM, and provides powers for the veterinary inspector to carry out an investigation and to restrict movements on affected or suspicious deer.

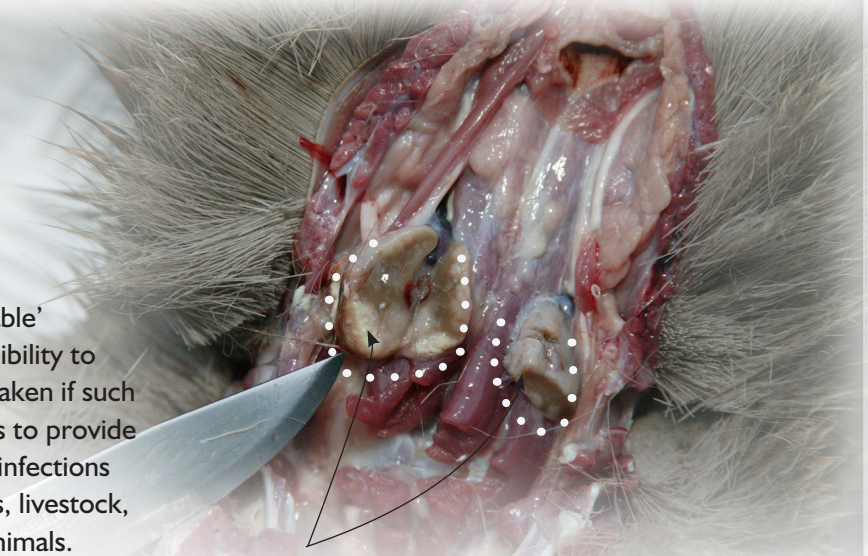
Confirmation of Bovine TB in wild deer is unlikely to lead to legal restrictions on the management of wild deer, but it may be relevant to the control of domestic livestock or farmed deer in the area, so it is mandatory information for the DVM.

Safeguarding human health

A small number of diseases are also transmissible to humans either through direct transmission (e.g. Bovine TB) or indirect transmission (e.g. Lyme disease** from ticks).

Specifically in relation to Bovine TB, transmission to humans through eating venison from infected deer is very unlikely and there is no recorded case. The meat from infected animals can even be passed as 'fit for human consumption' (after the removal of the affected tissue) unless the carcass is generally emaciated. Those coming in contact with tuberculosis should consult their own doctor immediately.

- 2 Even apparently healthy deer may be infected with a disease transmissible to man so that care



sub-mandibular (sub-maxillary) lymph nodes from deer with TB. For comparison with normal nodes see BPG Carcass Inspection. initial infection

should always be taken to minimise the potential for disease spread by carrying out good hygiene practices when handling carcasses.*

Prevention of disease

Preventing introduction of disease from outside the UK

- 1 If importing live animals, hunting trophies or foodstuffs (animal and human), ensure that all UK disease prevention laws are complied with.
- 2 Take care to prevent those who have been in contact with deer overseas or walking in infected areas introducing disease through clothes or boots contaminated with mud or blood (e.g. Chronic Wasting Disease could be introduced in this way from North America).

Reducing risk of disease in wild deer

Stress (e.g. malnutrition) can lower an individual's ability to resist disease and parasites, and deer found in higher densities and concentrations are more likely to transmit and contract infectious diseases and parasites.

- 2 Maximise quality of forage and shelter available throughout year to reduce the risk of malnutrition.
- 2 Avoid or minimise situations where deer are artificially concentrated in close proximity to each other (such as feed sites) to prevent transmission.

Notifiable diseases and prevalence

Bovine Tuberculosis (*Mycobacterium bovis*)

As Bovine Tuberculosis (bTB) is potentially a serious risk to livestock and may pose a threat to human health, the disease is notifiable. Wild deer can contract bTB. Fortunately, there is currently a low incidence of bTB in domestic livestock in Scotland. Only four cases of bovine TB in wild deer have been recorded since 1989.

The symptoms and signs for bTB overlap with two related diseases which can also be contracted: Avian Tuberculosis (aTB) (*Mycobacterium avium avium*) and Johne's disease (*Mycobacterium avium paratuberculosis*). aTB and Johne's disease (not notifiable) are more commonly found in wild deer.

Lesions of bTB are indistinguishable from those of aTB. The two infections can only be separated by culturing the bacteria from lesions in the laboratory and characterising their DNA. This usually takes at least 6 weeks.

Chronic Wasting Disease (CWD)

Chronic Wasting Disease (CWD) has been reported in several deer species in the USA. Although not strictly listed as a Notifiable Disease, CWD is a member of a group of transmissible spongiform

encephalopathies (TSEs) to which scrapie of sheep and bovine spongiform encephalopathy (which is a Notifiable Disease) belong. TSEs have not been diagnosed in British deer although Europe wide surveillance is in place.

Foot and Mouth Disease

Foot and Mouth Disease (FMD): experimental work has demonstrated that red, fallow, roe and sika can all contract FMD. During the 2001 and 2007 epidemics no deer were confirmed to have had FMD despite very close contact with infected cattle and sheep.

Bluetongue

Bluetongue and Epizootic Haemorrhagic Disease (EHD): Epizootic haemorrhagic disease which affects deer is clinically and pathologically similar to Bluetongue. Both diseases are caused by a related but different virus. Bluetongue is now present in the UK having spread to livestock in England in 2007. Further spread of the disease will depend on environmental conditions allowing the virus to multiply in midges that transmit the disease. Although there have been a small number of cases of Bluetongue in deer in Europe, there have been no confirmed cases in deer in the UK. EHD has never been recorded in the UK.

| Indicative signs and symptoms ³ | Action if suspected once shot | Action at larder |
|---|--|---|
| Bovine TB: Most common signs are abnormal retropharyngeal or mesenteric lymph nodes (enlarged, deformed or rupturing) containing thick creamy yellow-green pus. Initial infection in lymph nodes of the head and lungs may spread to liver, spleen, diaphragm and under the skin – leading to abscesses, lesions or nodules. This will cause animals to lose condition ultimately leading to emaciation. | Inspect the mesenteric lymph nodes when the gralloch is removed.** If observe: ♦ abscess in lymph node (not related to obvious injury) and/or ♦ other swollen lymph nodes and/or ♦ lymph node containing cream coloured pus, where TB is suspected take the gralloch / viscera back to the larder in an impervious container, (for example a strong, sealed plastic bag). | Retain with the carcass and pluck outwith the larder in secure storage, separate from other carcasses, for inspection by a veterinary officer from the local Animal Health Divisional Office who will advise on disposal and further required action. |
| CWD: General change in behaviour (e.g. separation from the herd, teeth grinding, unsteady on feet, repetitive walking, paralysis). Clinically CWD appears as emaciation, salivation, drooping of head and ears, weakness and bulging eyes. Any deer showing abnormal behaviour that cannot be explained in any other way is considered legally notifiable. | Inform the DVM immediately if symptoms of these diseases are suspected. If the animal has been shot do not remove the head so that an undamaged brainstem sample can be taken for investigation. | Do not proceed with dressing. Retain all parts of the carcass in secure storage for collection of samples by the investigating veterinary officer. |
| Foot & Mouth: Symptoms and signs include limping, blisters on mouth and feet. From experimental infection red and fallow showed least clinical signs, with sika intermediate and roe becoming seriously ill with 50% of animals dying. | Inform the DVM immediately if symptoms of this disease are suspected. Leave the carcass where it was shot and avoid damaging any blisters to allow samples of these to be taken by the investigating veterinary officer. Avoid any contact with livestock until the report has been investigated. | Do not proceed with dressing. Retain all parts of the carcass in secure storage for collection of samples by the investigating veterinary officer. |
| Bluetongue & EHD: Possible symptoms in deer include eye and nasal discharges, drooling as a result of ulcerations in the mouth, swelling of the mouth, head and neck. | Inform the DVM immediately if symptoms of this diseases are suspected. The entire carcass can be moved to a convenient point for examination by the investigating veterinary officer. | Do not proceed with dressing. Retain all parts of the carcass in secure storage for collection of samples by the investigating veterinary officer. |

* See BPG Basic Hygiene Principles

** See BPG Gralloching, BPG Larding and BPG Carcass Inspection

¹ A definitive list of the Notifiable Diseases which may affect deer is available from DEFRA www.defra.gov.uk. For contact details see BP Contacts

² Local APHA Field Services Office (Services Offices: Scotland) see BP Contacts

³ Note: these are only a guide and none, all or other symptoms may be displayed – if in doubt report