The Government strategic framework for the sustainable control of bovine tuberculosis (bTB) in Great Britain, aims to achieve a common understanding of the disease with strong emphasis on disease prevention.

As part of this, it is useful to investigate how bTB can also affect other animals such as:

- Tuberculosis in species other than cattle
- Cats and dogs
- Pigs
- South American camelids
- Goats
- Deer (farmed and park)
- TB in other species statistics

Lesions consistent with tuberculosis (TB) have been identified in a feral wild boar

Lesions consistent with tuberculosis (TB) were identified in a feral wild boar from the Ross-on-Wye area during post-mortem examination by the Veterinary laboratory Agency (VLA). Tissue culture results have come back positive for Mycobacterium bovis (M. bovis). The animal died during handling under anaesthesia as part of an ongoing research project carried out by the Food and Environment Research Agency (Fera) [highperlink to Fera website]. Fera conducts a number of research projects (on behalf of Defra) on the management of wild boar in this area.

The feral wild boar population in England is relatively small and localised and so they are not currently considered a major disease threat to cattle. TB caused by M.bovis has previously been diagnosed on two captive wild boar farms in the Southwest of England, in 2000 and 2006 respectively. A previous Defra investigation of M.bovis infection prevalence in wildlife other than badgers included a small sample of free-living wild boar, but no evidence of this infection was identified at the time.

The main public health risks arising from wild boar are occupational, for those working with the carcasses in the field (hunters, researchers). We continue to advise basic personal hygiene practices, including wearing protective equipment to prevent cuts in the skin and to prevent exposure to infectious aerosols.

Bovine Tuberculosis in species other than cattle

Bovine Tuberculosis (TB) is an infectious and contagious disease primarily caused by Mycobacterium bovis (M. bovis). Cattle, buffalo and bison are the natural hosts of M.bovis. However, nearly all warm-blooded animals are
susceptible to the infection including farmed animals e.g. pigs, sheep and camels; wildlife e.g. badgers and deer; pets including cats and dogs; and humans. In cattle and badgers the infection is self-sustaining. It is thought that most other species generally act only as spillover hosts. A spillover host is one in which the disease agent can persist in the population for a time (i.e. there is some transmission, but it is not self-sustaining), but will die out without an external source of infection.

The suspicion of TB in cattle and deer (clinical cases, cases detected at meat inspection, test reactors etc) has been notifiable to Animal Health (formerly the State Veterinary Service) for many years. An additional legal requirement was introduced in February 2006 for animal keepers, meat inspectors and veterinarians to notify Animal Health (AH) of any suspect TB lesions identified at post-mortem examination of any farmed or pet mammal. AH will arrange for bacteriological culture, of fresh tissue samples from suspect animals at the VLA – the cost of this will be met by government. If M.bovis is isolated from these samples, AH will inform the local Health Protection Unit, to facilitate the investigation of risks to any human contacts.

Action Animal Health takes if TB is suspected in non-bovine farmed animals (this includes animals which are more usually farmed but are being kept as pets)

If TB is confirmed or if in some cases if there is a strong suspicion of TB infection, movement restrictions will be imposed and will remain in place until Animal health is satisfied that the herd is free from TB. In practice, this generally means that movement restrictions will only be lifted once Animal Health are satisfied – through testing – that all TB infected animals have been identified and removed.

If infected non-bovine animals located on a farm are identified, AH will TB test any cattle present on the breakdown and neighbouring premises.

Cats and Dogs

TB can affect domestic cats and dogs but the apparent incidence is low.

Pets can be exposed to TB from a variety of sources including infected cattle, badgers and other wildlife.

Owners can take some precautions against their animal getting TB, for example, by ensuring their cats do not drink unpasteurised milk

Bovine TB is a zoonotic disease (i.e. the disease can be spread from animal to human). Therefore, where TB in pets is disclosed, Animal Health or private veterinary surgeons must inform the Consultant in Communicable Disease Control (CCDC) of the Local Health Authority so that any risks to human contacts can be investigated.

Treatment

Treatment of TB infected pets is not recommended because of the risk this presents of transmitting the disease to other animals and/or the pet’s owners.

Action that Animal Health takes when TB is suspected

Animal Health will ask the Veterinary Laboratories Agency (VLA) to complete a pathological examination and bacteriological culture from the animal – the costs of this will be met by Defra. If notification of a positive culture comes from a private or Public Health Laboratory Service laboratory, they are encouraged to submit samples to
VLA.

If TB is reported in a farm cat or dog, the DVM will instigate TB testing of any cattle on the farm and other, potentially exposed cattle, on neighbouring premises.

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Pigs

The oral route is considered the most significant way in which pigs become infected, most frequently by ingesting milk or milk products from infected cows (domesticated pigs) or scavenging carcasses of tuberculous animals (feral pigs). There is no active surveillance for TB in pigs, cases will tend to be identified at post slaughter inspection.

South American camelids (llamas, alpacas, vicunas, guanacos)

Although reports of infection in their natural habitat in South America are few, cases of TB have been diagnosed in llamas and alpacas in New Zealand, the USA and in Great Britain.

If an owner suspects there animal may be infected with TB, they should firstly contact their private Veterinary Surgeon. Additionally owners are encouraged to have a post-mortem examination of any camelid which dies on farm or shows signs which are suspicious of tuberculosis.

Camelid herds will be TB tested at the government’s expense if infection with M. bovis is confirmed (within the herd) by bacteriological culture or if M. bovis has been confirmed in a co-located cattle herd. Camelid owners must agree to the removal of any positive reactors before testing can proceed.

DEFRA’s advice is that suspect clinical cases of TB should be notified to Animal Health and culled rather than treated with anti-TB drugs. Owners need to be aware of the risks posed by treating suspect cases. Effective treatment of TB in humans is quite a complex, long and costly process involving a six-month course of at least three different drugs.

To our knowledge, the effectiveness of such drugs and protocols has never been properly evaluated in South American camelids. Assuming that an infected camelid will consistently receive the right dose of the appropriate drugs over a long enough period, it may remain infective to humans and other animals for some time. Many treatment regimes, whilst seemingly capable of resolving the clinical signs of TB, will not result in a complete microbiological cure (elimination of all the bacilli) and may result in latent infections and potentially the development of drug resistance, resulting in serious public and animal health risks.

Additionally, owners need to be aware that by treating animals for TB they are jeopardising the only method of control currently available to infected herds (testing and slaughter of any positives) due to the suppressive effects the drugs may have on the immunological responses detected by the ante-mortem diagnostic tests. Animal Health may, therefore, be unable to undertake any TB testing of infected camelid herds if they become
aware that owners are administering anti-TB drugs to some of their animals.

Goats

Like most mammals, goats are susceptible to infection by Mycobacterium bovis (M. bovis). There is a risk of transmission to humans if unpasteurised milk or dairy products made from unpasteurised milk from TB-infected nannies are consumed, the disease to humans.

Goats will be TB tested, at Defra's expense if located on premises where TB has been confirmed in cattle (subject to findings of a veterinary risk assessment), or if M. bovis infection has been confirmed in the goat herd itself. Where an owner wishes to tuberculin test goats in the absence of confirmed M. bovis infection on the premises or in the immediate vicinity, testing may be undertaken privately by the owner's veterinary surgeon at the owner's expense. Such testing must, however, be agreed and approved by Animal Health.

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Farmed deer

Farmed deer are any deer that are kept by for business purposes. Legislation requires farmed deer to be identified if they are to be tested for TB or leave the farm of origin. The identification tag must show both the Defra or British Deer Farmers' Association (BDFA) herd registration number and the animal's own unique number. The BDFA website contains detailed information on their herd registration system.

Legislation

- The Tuberculosis (Deer) Order 1989
- The Tuberculosis (Deer) (Amendment) Order 1993
- The Movement of Animals (Records) (Amendment) Order 1989

TB Testing

Bovine TB in deer is a notifiable disease. Under the Tuberculosis (Deer) Order 1989 (as amended), suspicion of TB in any deer (or deer carcase), must be notified to the local Animal Health office. The skin test is used, at the owner's expense, to test TB deer. The test may only be carried out with prior authorisation from (and by Official Veterinarians appointed by) Animal Health. There is no routine statutory TB testing programme for deer herds in GB. However, Animal Health may require the testing of deer, at the owner's expense, in order to check for the presence of TB. In practice, this could take place for one of the following reasons:

- application for (or renewal of) Deer Health Scheme membership;
- "diagnostic" purposes, e.g. when suspect TB lesions have been found on post-mortem examination of farmed or park deer, in order to check test the herd of origin, or when TB is confirmed in cattle herds
adjoining (or co-located with) deer herds;
  • to allow removal of movement restrictions on deer farms following disclosure of TB test reactors, clinical cases or confirmed slaughterhouse cases;
  • for health certification of deer for export;
  • check testing of imported animals.

Testing may only be performed by veterinary surgeons who have been appointed to the LVI (Deer) Panel 6(b).
For more information on TB testing for deer, please contact your local AHDO.

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TB in other species statistics
  • Incidents of confirmed M. bovis infection in domestic and companion animals & wild deer in GB, since 1997 (PDF).

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