

September 17, 2018

Concern at potential spread of bTB by hounds



Dear editor,

Just before the last general election, many of us signed a letter (McGill et al, 2017) summarising our opposition to fox hunting, which the prime minister supported.

One point we raised concerned the potential spread of bTB by the Kimblewick Hunt's pack of hounds, which had become infected in 2016. The report of this outbreak has been published by O'Halloran et al (2018), in association with the APHA/Defra.

Kimblewick's approximately 180 hounds ran across six counties of England in the edge and low-risk area for bTB in cattle. The authors elucidated the development of molecular pathological diagnostics for bTB infection in dogs, including serology and interferon-gamma release assay (IGRA). Of the 164 hounds tested, 59 per cent had evidence of bTB infection.

The authors stated: "It was assumed any hound with a significant interferon-gamma response to at least one test antigen was infected and potentially infectious. Any such hound would, therefore, pose a risk to human and animal health, as well as to the environment, and so should be removed from the pack and euthanised." Consequently, all 97 bTB-infected dogs were slaughtered.

The authors described the Kimblewick outbreak and its likely origins in detail, and provided a qualitative disease risk analysis (DRA) outlining the most likely routes of infection for these hounds: 1. The most likely route of bTB infection for hounds was the feeding of bTB-infected livestock, either at Kimblewick or other hunt kennels in the UK.

2. In order of likelihood, the two circumstances the Kimblewick hounds most probably contracted bTB occurred:

- while a hound destined for Kimblewick was temporarily resident at another hunt kennels
- while at Kimblewick, from the feeding to hounds of bTB-infected livestock

The hound described in scenario 2a would have been fed bTB-infected livestock, or contracted bTB from hounds at that kennel that had consumed such livestock. This hound would have been a bitch returning from loan to another kennel for breeding purposes, or a hound moved from another kennel to Kimblewick, and would have arrived as the index case. Although the practice of loaning hounds to multiple other kennels is common, no pre-movement testing exists for hounds that move freely around the country – irrespective of bTB status.

The report stated 13 bitches were moved between Kimblewick and two hunt kennels in the high-risk area (HRA) in the 18 months prior to the index case. The genotype of *Mycobacterium bovis* responsible for the Kimblewick outbreak of bTB was spoligotype 10:a and both kennels were within the home range of this agent. One bitch tested after her return to Kimblewick was *M bovis* 10:a positive. Three additional hounds were also moved to Kimblewick during this period, from three other kennels within the HRA.

Under scenario 2b, multiple hounds at Kimblewick would have been exposed at the same, or sequential, meals from an infected carcass or carcasses. Although *M bovis* 10:a had not often been

detected in the vicinity of Kimblewick's kennels, three farms that had bTB 10:a breakdowns between 2014 and 2016 did provide a total of six carcasses for consumption by Kimblewick hounds.

Pathology, culture, contamination and spread

bTB was cultured in 40 per cent of hounds from which culture was attempted (n=35). Several hounds had florid renal lesions, from which *M bovis* 10:a could always be cultured. The organism was also cultured from urine in all hounds with clinical signs of disease or renal lesions at postmortem examination (PME), and from three hounds with no visible lesions at PME. Live bTB bacilli in urine would certainly have contaminated the environment.

The hounds were kept in overcrowded and squalid conditions, so oral and skin wounds from fighting – or competing over carcass bones – would provide a portal of entry from an environment undoubtedly contaminated with bTB bacilli. Dog-to-dog transmission could also have occurred by inhalation or other routes. Nineteen at-risk pet dogs that had close association with the hunt were tested using IGRA. Two of the 19 were *M bovis* 10:a positive, indicating onward transmission of the disease to pet dogs.

One member of staff at Kimblewick's kennels also developed a latent infection with *M bovis* 10:a. Further details are awaited, but dog-to-human transmission of bTB seems highly probable.

Report summary

The practices and poor husbandry of the Kimblewick Hunt, and its kennels, are intimately involved with the movement by a hound – or hounds – of *M bovis* 10:a into an area of England where it was hitherto not thought to be prevalent, and its onward spread to the environment and a total of 97 hounds, two pet dogs and probably one human member of staff (O'Halloran et al, 2018).

Control policy 'inadequate'

The report stated hounds moved between Kimblewick and five other kennels in the HRA were tested, with – as aforementioned – one bitch testing positive. However, these hunt kennels appear not to have been systematically tested for bTB – to our knowledge, systematic testing and surveillance for bTB infection in hound packs nationally has not been started.

Additionally, Defra's control policy to prevent the infection of hunting hounds, via the consumption of bTB-infected carcasses, is unlikely to be effective. Instead of entirely banning the practice, Defra banned the feeding of livestock offals to hounds (Defra, 2017). bTB lesions in cattle are not confined to offals, but occur, for example, in peripheral lymph nodes – including those of the head and neck (Menin et al, 2013), and in bone (Advisory Committee on the Microbiological Safety of Food [ACMSF], 2001) and the CNS (McGill and Wells, 1993). As kennel workers will not always identify such lesions, and as up to 10 per cent of bTB cases in UK cattle have no visible lesions (ACMSF, 2001), we are concerned infected tissues will continue to be fed raw to packs of hounds throughout the country.

In our opinion, the policy is inadequate as it perpetuates the most likely route of infection for hounds and does little to hinder the spread of bTB, either geographically or across species barriers by hunting dogs. It is equivalent to half-closing the stable door long after the

horse has bolted, but not noticing all the other horses are also missing.

Defra should immediately ban the feeding of livestock to hunting hounds and announce a moratorium on hunting with hounds throughout England until data is presented showing hound packs are free of bTB nationally.

Many landowners and farmers stand to be adversely impacted by any spreading of bTB by hunting hounds, and may be extremely concerned. We are concerned the risks associated with hunting hounds, via a formal DRA, have not been identified earlier. We requested sight of such a document more than three years ago and were informed a DRA wasn't needed as Defra had taken "expert advice".

A great deal more evidence exists that infected hunting hounds are spreading bTB, both across species and county lines, than has ever existed for badgers doing so. Plans for further brutal, and unscientific, badger culling continue to disgrace our profession.

We have copied this to the CVO and the RCVS, and will be seeking urgent meetings to ensure action is taken.

Yours faithfully,

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I love that clients can be so trusting, and that flashing body parts around the consult room or waiting room is something they feel safe in doing. But unexpected nudity in the workplace is not always welcome.

Jane Davidson offers words of caution for new graduates to be wary of clients who insist on letting it all hang out.

Read "Clients who reveal a little too much..." at vettimes.co.uk



Emily Castle

Heather Simcock you know you said you wanted to come and do some nights for experience? Get ready for all this... things get weird between midnight and 4am.

Cascade should include price differential limit



Dear editor,

In my view, the cascade has encouraged the licensing – along with additional data – for some medicines ("VMD to review guidance over misuse of cascade"; 27 August issue). Metronidazole and amlodipine are two examples, and I have used both regularly.

On the other hand, the cascade has sometimes caused a massive price differential compared to human products.

The cascade should include a price differential limit, especially once a veterinary medicine has passed its initial period of exclusivity.

Should we really be expected to refuse treatment if a client could easily afford the human version of the medicine required, but cannot afford to pay many times more for the veterinary version?

Yours faithfully,

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