VIDA diagnoses are recorded on the AHVLA FarmFile database and SAC LIMS database and comply with agreed diagnostic criteria against which regular validations and audits are undertaken.

The investigational expertise and comprehensive diagnostic laboratory facilities of both AHVLA and SAC are widely acknowledged, and unusual disease problems tend to be referred to either. However recognised conditions where there is either no diagnostic test, or for which a clinical diagnosis offers sufficient specificity to negate the need for laboratory investigation, are unlikely to be represented. The report may therefore be biased in favour of unusual incidents or those diseases that require laboratory investigation for confirmation.

AHVLA Regional Laboratories and SAC Veterinary Surveillance Centres have UKAS Accreditation and comply with ISO 17025 standard.

1 Introduction

The quarterly reports aim to identify emerging animal disease related threats and comment on trends. Their production is underpinned by a large amount of surveillance data and information compiled as part of animal disease scanning surveillance programmes in Great Britain. Some of these data can be viewed on the AHVLA website:

Table: Diagnostic submissions to AHVLA (England & Wales) and SAC (Scotland) in April to June 2014 Quarter for alpacas, llamas and farmed deer

<table>
<thead>
<tr>
<th>Apr-Jun</th>
<th>AHVLA</th>
<th>SAC</th>
<th>Total</th>
<th>AHVLA</th>
<th>SAC</th>
<th>Total</th>
<th>GB Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>116</td>
<td>13</td>
<td>129</td>
<td>75</td>
<td>11</td>
<td>86</td>
<td>215</td>
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<tr>
<td>2011</td>
<td>88</td>
<td>13</td>
<td>101</td>
<td>36</td>
<td>7</td>
<td>43</td>
<td>144</td>
</tr>
<tr>
<td>2012</td>
<td>96</td>
<td>12</td>
<td>108</td>
<td>48</td>
<td>8</td>
<td>56</td>
<td>164</td>
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<tr>
<td>2013</td>
<td>73</td>
<td>11</td>
<td>84</td>
<td>38</td>
<td>11</td>
<td>49</td>
<td>133</td>
</tr>
<tr>
<td>2014</td>
<td>72</td>
<td>9</td>
<td>81</td>
<td>23</td>
<td>5</td>
<td>28</td>
<td>109</td>
</tr>
</tbody>
</table>

This quarter sees the lowest number of non-carcase, carcase and therefore total number of submissions over the five years detailed above. Carcase numbers were down by 43% and total submissions numbers down by 18% on 2013 figures. Non-carcase numbers were comparable to last year. The reduction in the number of submissions was associated mainly with alpacas and deer. The number of llama submissions is generally small with carcase submissions being similar to previous years. Non-carcase llama submissions are similar to 2013 but much lower than 2010 when numbers were the highest over the 2004-2014 period.
2 New and Emerging Diseases

Review of the Veterinary Investigation Data Analysis (VIDA) data where a diagnosis has not been reached (DNR) allows monitoring of these cases with the aim of providing information on potential new or (re)emerging diseases or syndromes. Analysis found no statistically significant increases in DNR or diagnosis not listed (DNL) data for alpacas, llamas and deer and for all disease syndromes. However it should be noted that the numbers involved are small and therefore statistical interpretation has limited value. The expert group has no information to suggest that any new or (re)emerging diseases are currently circulating.

3 Ongoing emerging disease investigations

There are no on-going investigations of potential new or (re)emerging diseases.

4 Changes in Disease Patterns and Risk Factors

First reported case in the UK of malignant catarrhal fever (MCF) caused by white-tailed deer malignant catarrhal fever virus (WTD- MCFV) in a reindeer

Reindeer, like other deer species, cattle, bison and certain other hoofed animals, are susceptible to herpes virus infections including malignant catarrhal fever associated with ovine herpes virus infection (OV-Hv2). Analysis of AHVLA and SAC data over the last 10 years identified eleven cases, all in adult reindeer, presenting with malaise, recumbency and death, and less frequently nervous and musculoskeletal signs. An unusual form of malignant catarrhal fever was diagnosed by AHVLA in an adult reindeer with neurological signs. Histopathological examination of the brain revealed changes consistent with a severe subacute to chronic angiocentric meningoencephalitis similar to that observed in cases of MCF. No OvHV-2 DNA was detected by routine diagnostic real time polymerase chain reaction (PCR). However, as the animal was from a wildlife collection where other MCF inducing viruses may have been encountered, a pan-herpesvirus PCR method was carried out. A herpes virus consistent with white-tailed deer (WTD) associated MCFV was detected in splenic and central nervous tissues. Domestic goats have been suggested as the reservoir host of WT-MCFV both in North America and mainland Europe. This virus has not been detected in the UK before and the source of infection was unknown although goats may have been a possible source. Although WTD-MCF does not appear to be a significant problem in the UK, those animals most at risk are likely to reside in zoological collections and those presenting with signs and histological findings consistent with MCF should be tested for a variety of herpesviruses before ruling out this condition.

Wild deer as potential vectors of anthelmintic resistant abomasal nematodes

Gastrointestinal nematodes are important causes of production losses in farmed livestock and anthelmintic resistance is an increasingly important problem worldwide. The paper referenced below discusses the first account of in vitro benzimidazole resistance Haemonchus species (an abomasal nematode) in wild roe deer. This resistance was experimentally transferred to sheep and a calf. The potential therefore exists for the onward spread of anthelmintic resistant nematodes to domestic livestock and subsequent spread of resistance between farms. The study recognised that further work is needed to assess whether nematode cross transmission between deer and livestock occurs under field conditions and if this contributes to the development of resistance in livestock. This potentially has important implications for livestock grazing areas that are co-grazed by deer.

Reference

Horizon scanning – EHV-1 update

Under the horizon scanning section of the Miscellaneous and Exotic Farmed Species Quarter 4 2013 report http://www.defra.gov.uk/ahvla-en/files/pub-survrep-m0413.pdf EHV-1 was described as causing neurological disease (blindness and a fatal viral meningoencephalitis) in llamas in California that had contact with zebra and horses. In the AHT/BEVA/DEFRA quarterly disease surveillance report Jan-March quarter 2014 http://www.aht.org.uk/skins/Default/Defra-jan-march2014.pdf it was stated that the first confirmed cases of EHV-1 neurological disease had occurred in New Zealand (NZ) with 15 horses being affected and seven of these being euthanased. As a result of this finding this condition should be considered as a possible differential diagnoses in cases of unexplained nervous disease in camelids in NZ (and also in other countries, such as the UK, in which EHV-1 is present) particularly if there is a history of contact with equidae.

Publications


This letter highlights the finding of Baylisascaris columnaris from common striped skunks housed in a small zoo and discusses the management of this parasite given that B. procyonis, a related parasite, is considered the commonest cause of visceral larva migrans in wild and domestic animals and birds in North America. Human infection with B. procyonis is rare but can result in neurological or ocular disease which can be fatal. The management of these potentially zoonotic parasites was discussed.

Recent meetings

The Mycobacterium bovis conference was held in Cardiff from 16-19th June 2014 and was organised by the British Cattle Veterinary Association and hosted in Wales by the Welsh Government in conjunction with AHVLA and Defra. It was an international conference bringing together policymakers, epidemiologists, scientists and economists from around the world. The science and social aspects of bovine tuberculosis in a variety of countries was discussed relatively free from the political arena that can often dominate such discussions. Three lecture streams were run daily covering such topics such as epidemiology, vaccination, policy, diagnosis, wildlife and control measures. A large range of posters were also on show and of particular interest was one describing the potential of PCR testing to detect natural M.bovis infections in South American Camelids.