



Parasite Forecast

Issue 12

Winter 2019 / 2020

Welcome

Welcome to the ESCCAP UK & Ireland quarterly newsletter. The end of 2019 saw the tick-borne pathogens *Babesia venatorum* and tick-borne encephalitis virus confirmed as endemic in the UK. Both these pathogens, transmitted by *Ixodes* spp. ticks, are zoonoses and understandable concern has arisen at their arrival.



2020 will likely see our pet importation rules and the Pet Travel Scheme (PETS) discussed as part of negotiations as we prepare to leave the EU. Compulsory tick treatment for pets entering the UK, screening of imported dogs for tick-borne pathogens and increased regulation regarding the importation of rescue dogs from abroad have all been suggested as means of reducing the risk of exotic ticks and tick-borne pathogens arriving on our shores.

ESCCAP UK & Ireland supports the introduction of these measures and would encourage the veterinary community to lobby MPs and support the BVA in its "Trojan dog" campaign, calling for increased regulation. Such measures, however, will only be successful as part of a wider approach. Pet owners taking their pets abroad need to be given correct advice and tick preventative products applied before, during and after travel. While pyrethroids and isoxazolines are highly effective, no tick product is 100% efficacious, making vigilance for ticks on travelled pets and their safe removal also vitally important. The arrival of these new pathogens alongside the recent outbreak of *Babesia canis* in Harlow, demonstrates the need for effective tick control on both people and our pets. Lyme disease also remains a growing endemic risk in the UK and ticks will remain a major focus for ESCCAP UK & Ireland in 2020.

In this issue of Parasite Forecast, as well our latest news section and summary of enquiries to ESCCAP UK & Ireland, we have a case summary describing a suspected case of leishmaniosis in a Spaniel. We also have the parasite forecast, summarising which parasites may represent an increased risk based on current information.

Parasite Forecast aims to keep veterinary practices, industry and academia up to date with ESCCAP UK & Ireland news and activities. We welcome any feedback, including any suggestions for future topics or case studies to cover. Please email info@esccapuk.org.uk

To sign up to future editions of Parasite Forecast, please visit: www.esccapuk.org.uk/newsletter/subscribe/

Each edition will also be published on the ESCCAP UK & Ireland website: www.esccapuk.org.uk

To your parasite control success!



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Exotic disease in imported dogs from Eastern and Southern Europe

A BVA survey has revealed more than nine out of ten companion animal vets (93%) in the country are concerned about the import of rescue dogs from abroad, with three-quarters feeling the numbers have increased over the last year.

Cases reported to ESCCAP UK & Ireland reflect this with leishmaniosis and heartworm in imported dogs continuing to be high. A fourteen-day euthanasia policy for stray dogs in Romania is driving rescue imports into the country and veterinary professionals should be vigilant for these dogs entering the UK and the possible pathogens they may be carrying. Heartworm cases have been reported this quarter in dogs imported from Romania as well as South America and Asia, demonstrating the need for vigilance in dogs imported from all endemic countries.



Adult heartworm (*Dirofilaria immitis*)

UK vets need to be extremely vigilant for exotic pathogens entering the UK from South America where the zoonotic health risk as well as the impact on the health of the pet from a range of endemic pathogens could be considerable.

ESCCAP UK & Ireland recommend four key steps (the 'four pillars') when dealing with all imported or travelled pets arriving in the UK:

1. **Checking for ticks and subsequent identification of any found**
2. **Treat dogs again with praziquantel within 30 days of return to the UK and treat for ticks if treatment is not already in place**
3. **Recognise clinical signs relevant to diseases in the countries visited or country of origin**
4. **Screening for *Leishmania* spp. and exotic tick-borne diseases in imported dogs**

Following the 'four pillars' concept will enable veterinary professionals to prepare owners if parasites are present, improve prognosis of clinical cases, minimise the risk of spread of any disease and carry out effective disease/parasite surveillance.

Mosquitos

Mosquito numbers are already high in the UK with the warm wet Summer and early Autumn.

Public Health England (PHE) runs a free mosquito reporting service and we encourage anyone able to capture mosquitoes to send them into PHE to help with surveillance. This is important work to help establish which vector-borne diseases UK mosquitoes are likely to transmit or allow to establish. For further information go to www.gov.uk/government/publications/mosquito-surveillance/mosquito-nationwide-surveillance.

Fleas

The warm and wet weather will have helped to maintain high background flea populations.

The big flea project found 28.1% of cats and 14.4% of dogs positive for fleas. <https://parasitesandvectors.biomedcentral.com/articles/10.1186/s13071-019-3326-x>. 11.3% of these infested pets were found to be harbouring fleas infected with *Bartonella*.

An infested population of this size puts the UK pet owning population at significant risk of exposure to this zoonotic pathogen, making routine flea control essential for all domestic cats and dogs.

Veterinary professionals should continue to advise routine year round preventative treatment to prevent house infestations.

Lungworm

An outbreak of *Filaroides (Oslerus) osleri* has been reported in a greyhound kennel in Yorkshire.

Infected dogs had been presenting with a dry cough and the distinctive larvae confirmed by Baermann. In damp or multi dog environments where infective larvae can build up, this parasite is an important differential in the coughing dog. Baermann testing of faeces remains very useful in potentially diagnosing a range of canine lungworms in dogs with relevant clinical signs.

The warm and humid weather is likely to support continuing slug and snail activity. Veterinary professionals should therefore continue to be vigilant for cases of *Angiostrongylus vasorum* in their area and advise preventative treatment for high risk dogs



Accidental ingestion is common

(previously infected dogs, those dogs living in close proximity to other cases, those ingesting slugs, snails, grass and amphibians and those that are coprophagic).

A recently published study has shown a continuing lack of awareness of *Angiostrongylus vasorum* and the risks it poses to dogs. The online survey of 1,500 dog owners was conducted in April 2019 by **Atomik Research for Vets4Pets**.

Key findings include:

- Over half of dog owners (52%) are aware of lungworm, but 39% admitted they don't know exactly what it is.
- 1 in 10 dog owners (mostly younger respondents) were unaware of lungworm entirely.
- A fifth of dog owners (19%) whose pet has had a case of lungworm admitted they still weren't entirely sure what it was, while 5% didn't know at all.
- Less than a third of dog owners were able to correctly identify that slugs (32%) and snails (27%) spread the lungworm parasite.
- Some 13% thought the parasite is spread by sheep or rats.
- In total, 6% of those surveyed thought otters were to blame for spreading the parasite.

Tick-borne disease

Tick-borne encephalitis virus has now established in the UK.

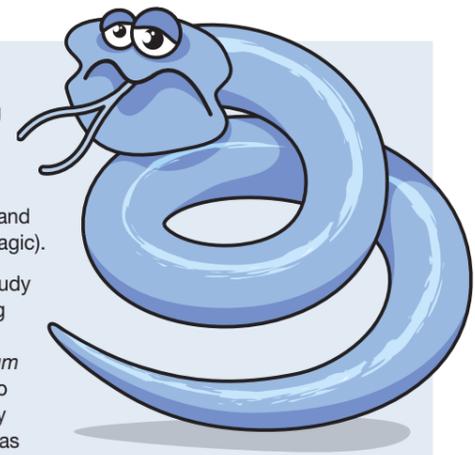
www.bbc.co.uk/news/health-50206382

While pets and their owners should continue to enjoy the beautiful New and Thetford forests where there is evidence for establishment, the need for effective tick prevention has never been more important for those pets and people working there and using the areas for regular recreational activity.

Further recently published data continues to support the view that the current UK climate allows questing and feeding of *Ixodes* spp. ticks all year round. (<http://veterinaryrecord.bmj.com/cgi/content/full/vr.104649>). The continued humid wet weather will increase the range and number of active ticks. Checking for and removing ticks within 24 hours and using an effective product that will rapidly kill or repel ticks, will greatly reduce the risk of transmission for pets and owners walking in high risk areas such as outdoor areas with tall grass, bracken and those shared with deer or ruminants.

Pets with a previous history of tick exposure should also be treated as it is likely their lifestyle will expose them to ticks again in the future. A recent study has supported an association between Lyme positive dogs and human exposure, but because of shared environmental exposure <https://geospatialhealth.net/index.php/gh/article/view/750>.

Positive dogs are therefore sentinels for human infection and owners of positive dogs should be aware of the possibility that they may also have been exposed.



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Echinococcus granulosus

Work carried out on behalf of the Welsh Government and FSA offal condemnation figures both demonstrate that the incidence of *Echinococcus granulosus* is much more widespread in Britain than previously thought.

Post-mortem inspections in abattoirs across Britain have produced positive cases with a particularly high incidence on the Welsh border and North Midlands. **HyData UK** is a 3-year (2016-2018) multi-centre collaborative study investigating the national distribution of *E. granulosus* in high-risk dog populations (hunting hounds, farm dogs and pet dogs in rural areas), livestock (cattle, sheep) and horses at slaughter in England, Wales, Scotland and Northern Ireland.

Using a molecular epidemiological approach and GIS methodology, the study aims to build the most comprehensive picture of *E. granulosus* geographic distribution in the UK and explore associated risk factors for animal and human infection.

Until these results become available, prevention advice to pet owners must be based on lifestyle risk of the pet, including:

1. Monthly treatment with praziquantel of all dogs in known hydatid endemic areas unless kept on leads and fed cooked diets
2. Monthly treatment with praziquantel for any dogs outside these areas shedding *Taenia* spp. tapeworm segments (the risk factors for *Taenia* spp. and *E. granulosus* infection are broadly the same), fed raw offal/unprocessed raw diets or have access to fallen livestock.
3. At least 4 times a year praziquantel treatment for dogs in non endemic areas that are out of sight off lead with potential pasture access.
4. Promotion of anti dog fouling, keeping dogs on leads around farms and livestock, and promotion of adequately frozen or cooked diets.

Case report

This edition's case summarises a suspected case of leishmaniosis in a Spaniel.

Suspected case of leishmaniosis in an imported dog from Spain

A three year old male Springer Spaniel imported from Spain 18 months previously presented to the practice with mildly pruritic crusting skin lesions on the edges of the pinna present for three months.

Biochemistry and urinalysis were unremarkable, no lymphadenopathy was present but low to moderate IFAT serology titres (170) were present for *Leishmania* spp. Given the travel history and presenting signs, biopsies of the lesions on the pinna were taken.



Histology was consistent granulomatous dermatitis with follicular furunculosis. No amastigotes were seen and the samples were PCR negative for *Leishmania* spp. Subsequent dietary trials and allergy blood testing confirmed atopy and subsequent serology testing for serology did not show an increase in titres. Conjunctival PCR was also negative.

While it is important to consider leishmaniosis as a differential in dogs that have travelled or lived in endemic countries, it is also important to consider other differentials for the presenting clinical signs.

Latest news from ESCCAP UK & Ireland

New *Angiostrongylus vasorum* diagnosis info sheet

ESCCAP UK and Ireland has created a new *Angiostrongylus vasorum* diagnosis info sheet summarising the spread of this parasite in the UK, the importance of testing dogs with relevant clinical signs and routine screening.

It also contains a flow chart to help take a systematic approach to diagnosing clinical cases. The info sheet is available to download from the ESCCAP UK & Ireland website www.esccapuk.org.uk

Latest news from ESCCAP UK & Ireland

ESCCAP UK & Ireland plans for 2020

ESCCAP UK & Ireland's plans for 2020 consists of continuing broad parasite coverage through its website, fellowship arrangements with iRecall, Veterinary Prescriber, *Companion Animal* and *The Veterinary Nurse* as well as its LinkedIn account.

In addition to these ongoing projects it will also continue with CPD and the quarterly newsletter and Parasite Forecast.

The increasing risk of imported exotic parasite risk will continue to be a focus, especially as the future regulations for pet travel and importation become clearer after Brexit. Expected new countrywide data from the **HyData UK** project, *Toxocara* spp. research and the newly launched ESCCAP Equine Guideline will promote interest in domestic parasites and the opportunity to give clearer risk based advice. ESCCAP UK & Ireland will endeavour to support and promote raising awareness around this data, both in practices but also directly to the public through, schools, UK wide organisations and meetings. This will be achieved by:

Ectoparasite ID materials

Flea and tick identification posters will be available for download on the website to help assess which fleas and ticks may be involved in specific infestations.

Borrelia and *Anaplasma* seroprevalence study

The results of this study, its aims and results will be promoted through the website, blogs and articles. This will raise awareness of these parasites as well as giving some indication of where higher risk areas of canine exposure may be.

The study will also generate heartworm and *Ehrlichia* spp. data, giving a reflection of prevalence of these parasites in travelled and imported dogs.

Big flea project results activities

The Big Flea project has given countrywide data on the prevalence of *Bartonella* spp. in infected fleas on cats and dogs. ESCCAP UK & Ireland will raise awareness of the health implications for pets and zoonotic risk through a series of articles blogs and a downloadable advice sheet.

Hydatid awareness meetings

The results of the **HyData UK** project are likely to be published in 2020 and current evidence suggests unknown foci of *Echinococcus granulosus* in Britain in addition to known endemic areas. A question and answer conference panel alongside a wider media campaign is planned to raise awareness of these results and give preventative advice.

Exotic parasites awareness in imported dogs

ESCCAP UK & Ireland will continue to work with Dog Trust and the RSPCA to publish data on exotic parasites in imported dogs and use this to highlight the risks to both the veterinary profession and the public.

Diagnostic downloads as monitoring and positive reinforcement tool

Routine diagnostic testing for intestinal nematodes and lungworm has been an underused tool in the UK as it is often seen purely as an alternative to routine deworming. Regular testing to screen for nematodes is also a useful way however, to demonstrate to clients the benefits of routine deworming, confirm effective compliance and gather useful countrywide prevalence data. Through 2020, ESCCAP UK & Ireland will promote routine testing as a means of reinforcing good deworming practices and risk assessment.

Equine

The equine guideline has now been launched and the plan remains to launch an equine "parasite wheel" similar to the ones currently available for cats and dogs.

Vet School research support

Nottingham Vet School's investigation into the prevalence of *Toxocara* spp. eggs in public sandpits in the UK, degree of contamination and the risk it may pose to public health will be published in 2020 and used to raise awareness.

We welcome any feedback and input regarding our plans and any suggestions for additional activities.

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ESCCAP UK & Ireland at the London Vet Show

ESCCAP UK & Ireland was present networking at the London Vet Show in November 2019 and presented a lecture on the importance of parasite diagnostics in association with our Sponsor, IDEXX Laboratories.

Increased surveillance for exotic pathogens and routine screening for endemic parasites such as *Angiostrongylus vasorum* is vital to assess efficacy of individual parasite control programs, inform risk assessment for future control and to contribute to nationwide surveillance. Thank you to everyone who attended.



ESCCAP UK & Ireland Enquiries

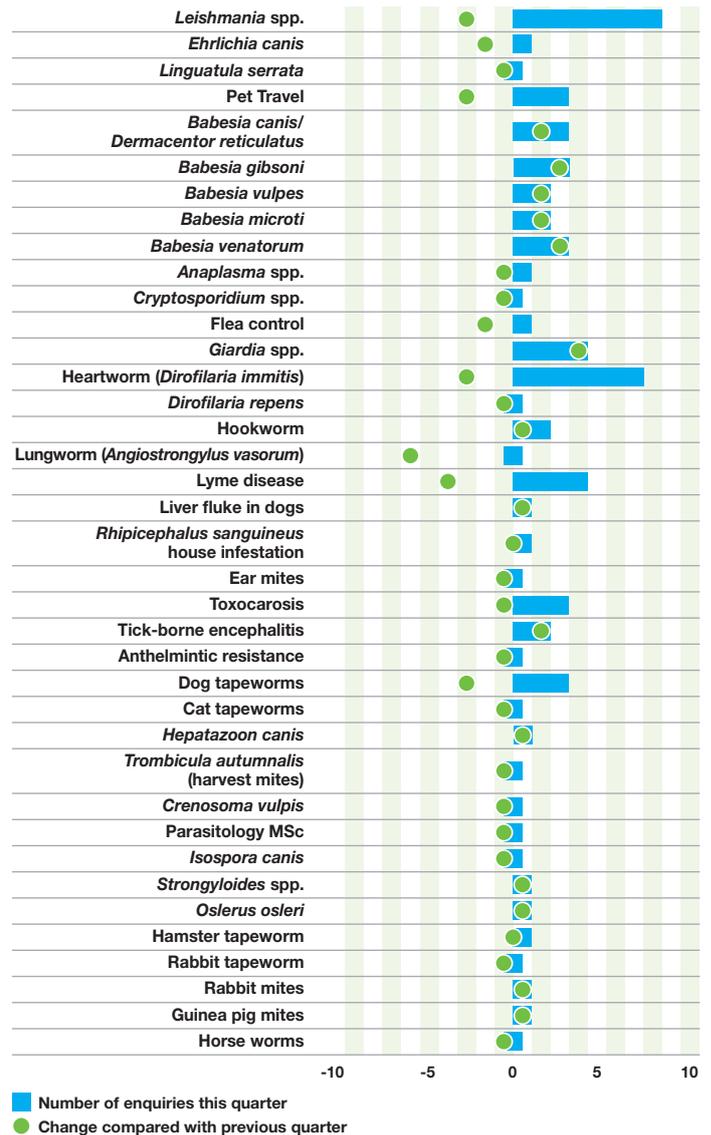
ESCCAP UK & Ireland received questions from veterinary professionals and the public regarding a wide range of subjects in the last three months.

The most enquiries this quarter have once again regarded imported cases of *Leishmania infantum*.

There have also been a large number of questions regarding the diagnosis and management of heartworm in imported dogs as more cases of infected rescue dogs are encountered by UK vets. The recent news that both *Babesia venatorum* and tick-borne encephalitis virus have endemic foci in the UK has led to increased queries regarding these pathogens and other tick-borne parasites.



We've been especially pleased to see questions regarding parasites in rabbits, guinea pigs and hamsters. Many of the answers to parasite treatment and control in small pet mammals can be found in Guideline 7 (www.esccap.org/guidelines/) and we are happy to receive questions on any aspect of exotic parasite control.



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