ZOO NOTIC disease and paths of transmission are always a topical issue, but their discussion at November’s London Vet Show sessions on Parasites, politics and people revealed the extent of concern over the introduction of a potentially deadly parasite into the UK.

Ingested eggs from the tapeworm *Echinococcus multilocularis* can lead to liver disease, with a high fatality rate if left untreated.

Research undertaken by Phil Craig, professor of biology at the University of Salford School of Environment and Life Sciences, points to growing transmission rates in continental Europe and cases of alveolar echinococcosis in humans. This is thought to be due to increased urban fox population density – foxes are a reservoir for the tapeworm along with voles – and egg transmission to domestic dogs.

While the British Isles are free from this tapeworm species at present, a panel convened by the European Scientific Counsel for Companion Animal Parasites (ESCCAP) discussed risk scenarios and potential transmission routes.

**A raw risk for domestic dogs**

Raw food diets were mentioned as one area of risk for domestic dogs. “The worry with all raw food feeding is not that it is not a good idea if it is done to a very high standard, but it is that people run out and do it to a very low standard,” said Ian Wright, head of ESCCAP UK and Ireland. “So dogs become compromised nutritionally and in terms of parasite risk.”

“There are all sorts of potential routes of transmission that we have to watch out for but I think that if raw food is not done very carefully there is going to be an element of risk.”

Parasitology consultant Maggie Fisher highlighted the importance of the UK veterinary protocol of risk analysis in any consultation. “If you have a dog that lives in a flat and never goes out, then treating it for tapeworm may be illogical. If you have a dog in an urban environment and it regularly goes out and is let off the lead, then it ramps up the possibilities.”

“In the back of our minds, without scaremongering, if *Echinococcus multilocularis* gets into the country we just need to keep a watching brief on it, because that could change our thinking.”

Worming frequency is one area that requires clarification, said Ian Wright. Asking clients if they have children, whether their dogs roam in the countryside or hunt, or have a raw diet, are important questions. Still, treatment frequency can be difficult to get right, he admitted.

**Justifying monthly worming**

There are many circumstances where monthly worming can be justified. “The BSAVA guidelines were originally for four times a year based on a minimum level, where there is good evidence for egg shedding reduction and increased zoonotic safety.”

Worming less often can have no effect at all, he said: “There is no evidence that doing nothing is less safe than doing it once or twice a year. Justify doing nothing or justify doing it four times a year or more frequently, but in the middle is a wishy-washy suggestion.”

One audience member described only using tapeworm treatment once a year, to which Ian asked the question, “Why?”

He continued: “As far as I’m aware there is no evidence that worming once a year is any more beneficial than not worming at all. There is a significant risk factor there and probably more frequently is required. We tend to easily give all sorts of advice out of habit and because our colleagues do, but it is very important that whatever advice you give is justified.”

Monthly worming can often be overdriven, he said, but the evidence base of what frequency is beneficial for pet health is lacking.

“Tapeworm is a strange thing because there is overwhelming evidence that if you have *E. multilocularis* risk, or *E. granulosis* risk [endemic to regions of the UK], then worming every month or six weeks for granulosis is of obvious benefit and what you should recommend.

“A lot of people ask me about less often than monthly worming frequency for tapeworm. The bottom line is it is not as clear as roundworm frequencies.”

In the US, where heartworm can be transmitted year-round, then all dogs, cats and ferrets are prescribed monthly parasite control. Fecal egg analysis is also standard in many clinical consultations.

“Broadly speaking, in the United States the overwhelming drive is for monthly worming,” said Ian. “The opinion is that you don’t need to worry if you worm every month because everything is dead.”

European veterinary protocols advocate testing for the presence of parasites with countries like Denmark previously pronouncing worming without testing illegal. “The UK has traditionally been caught in the middle,” he said.

“A lot of the emphasis falls on risk analysis, partially because of the tug and pull between the two ideas, but also because shedding of a lot of these parasites is intermittent.”

**Compromise necessary in practice**

In everyday practice there has to be a compromise position between the two extremes, said Ian. “There are situations where faecal analysis is a really good idea.

“I believe it is very good at demonstrating to nurses and clients that there is stuff in there. Ultimately there has to be some risk assessment and then you make a recommendation.”

One audience member said that the problem lay in the lack of a definite protocol. Regular vaccinations and worming treatments are simply easier to understand, rather than risk analysis based on lifestyle.

Countering this is the trend towards regular health checks over scheduled treatments, which could also satisfy arguments about developing drug resistance.

Maggie Fisher said that monitoring wormer resistance most effectively means looking at pressurised clinical situations.

“Where is it most likely to occur? Probably in highly infective situations where you are forever trying to reduce infection, like kennels, and where you are using the same product time and time again.”

In finalising the discussion, Ian Wright pointed out that engaging clients in their pet’s lifestyle and risk factors was a much more constructive way of approaching worming.

“Clients want a recommendation and the only way you can give them one is to ask questions, such as whether they live in an endemic area for *Echinococcus* and whether their pet hunts, then you can make a recommendation for the next 12 months.”

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– Ian Wright