Pet Travel Scheme: potential impacts of the relaxed rules

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Summary

HISTORICALLY, the rules for pet travel to and from the UK have differed from the rest of Europe. These variations between EU and British legislation prompted changes to be considered and instigated regarding travel. Part one of this two-part article (*VNT* 13.06) reviewed the reasoning behind the changes. This second part reviews the implications of the changes on animal disease, welfare, public health and the potential effects on the British public.

Key words

pet travel, public health, zoonosis, animal welfare, rabies, *Echinococcus multilocularis*

PART one of this article (*VNT*13.06) discussed the rationale behind changes to the Pet Travel Scheme (PETS), introduced in January 2012. This second and final part discusses the effects of the changes regarding animal diseases and welfare, plus implications for businesses and public health.

Changes in movement

Last year, approximately 100,000 animals travelled through the UK PETS scheme. A large majority (60 per cent) had UK pet passports, and a further 20 per cent entered from our closest neighbours

in the EU (France, Germany, Spain and The Netherlands), which are all free of rabies.

Since the legislation changed, the level of pet travel has increased, with more than 140,000 pets travelling annually. The rise is likely to be a reflection of the improved ease of travel, although a significant amount of movement has been seen in eastern European dogs entering the UK for resale – especially puppies. A four-fold increase in certain “desirable breeds” has been noted (Figure 1).

Under the previous incarnation of UK PETS, around 2,500 animals per year entered into quarantine. A requirement exists for six months’ quarantine if a pet is entering the UK from an unlisted third country, or in situations where an owner has either chosen to put his or her pet into quarantine rather than meeting the PETS requirements, or if the pet is found to be non-compliant with the entry requirements.

Diseases, parasites and risks

The following are diseases or parasites seen in other countries that are risks to any pets entering or re-entering the UK.

Rabies

Rabies affects all warm-blooded animals and is invariably fatal once symptoms have developed. It can be passed between species, and is normally transmitted through a bite by an infected animal (Figure 2). The UK is officially classified as free from terrestrial rabies. The disease persists in other parts of the world.

Rabies occurs in two epidemiological cycles – the urban and wildlife cycles. In the urban rabies cycle, dogs are the main reservoir host. This cycle is virtually eliminated in North America and Europe. The sylvatic (or wildlife) cycle is the predominant cycle in both Europe and North America, and foxes are at the heart of the reservoir.

According to Defra, the absolute level of risk of a rabid pet animal entering the UK is extremely low, and the risk of human infection (or longer-term disease establishment in the UK) is lower still. Post-exposure vaccines for humans are highly effective and, therefore, the likelihood of human deaths caused by rabies is very low.

The threat to the UK of rabies was the subject of a quantitative risk assessment prior to changes in PETS. The assessment measured the risk of a pet entering the UK with rabies under the pre-2012 scheme and the new EU-harmonised scheme. Although it was felt there would be an increase in the risk under the harmonised scheme, the absolute level of risk was deemed to remain very low.

Non-compliance with the rabies scheme relates to undetected pets being smuggled into the UK. It is not known how many of these animals are present, but prior to changes in the PETS legislation

the figure was thought to be low. It is felt in some quarters there has been an increase in non-complying pets since pet travel became easier.

Tapeworm

The tapeworm *Echinococcus multilocularis* causes the development of cysts in mammals that ingest its eggs (Figure 3). The typical transmission cycle in Europe is wildlife-based, involving red foxes as the main final host and rodents as intermediate hosts. It is a widespread parasite in Europe and, although surveillance is limited, there appears to be an increase in parasite prevalence. Indications suggest the parasite is extending its geographic range.

Domestic cats and dogs may become infected by ingesting infected intermediate hosts, and the increasing number of pets moved around the EU presents a major risk pathway for introduction into *E multilocularis* free areas.

Human infection results in the parasitic disease alveolar echinococcosis (AE), which is characterised by cyst-like tapeworm larvae growing in the body. Because the cysts are slowgrowing, infection with AE may not produce any symptoms for many years. Symptoms may mimic those of cirrhosis of the liver. Treatment is long term and expensive, often consisting of surgery and long-term medication. If left untreated, it is likely to result in death.

Once introduced into a “clean” area, the likelihood of *E multilocularis* becoming established is high. No clinical signs of infection by the tapeworm are visible in dogs or foxes.

Humans may become accidentally infected by ingesting eggs excreted by the infected definitive hosts, either foxes or dogs. Approximately 300 cases are now seen each year in Europe.

A quantitative risk analysis by Torgerson and Craig (2009) showed that if tapeworm treatment of dogs on importation into the UK was abandoned, it is almost inevitable *E multilocularis* would be introduced. The paper also cited the example of Reuben Island (northern Japan), an island that was previously disease free, where the first human AE cases were diagnosed within 12 years of the introduction – in 1924 to 1926 – of 24 red foxes from Russia.

The European Food Safety Authority (EFSA) advised that if national controls for tapeworm were abandoned, the movement of pets would risk the introduction of *E multilocularis.* The current PETS controls require treatment of pets with praziquantel or epsiprantel. These drugs have an efficacy near 100 per cent against mature and immature forms of the *E multilocularis* tapeworm in a single administration.

If we were to abandon tapeworm controls, the expectation is that we would occasionally import a dog infected with *E multilocularis* and that, sooner or later, we would end up with *E multilocularis* becoming established in the UK and spread by small rodents and foxes. Once established, the

thinking is it would be highly unlikely we would be able to eliminate *E multilocularis* from the wildlife population.

Ticks

Ticks are recognised as important reservoirs of, and potential vectors for, numerous diseases. The presence of ticks, and most of the diseases they transmit, are not notifiable or reportable in most countries in the EU, and there is little in the way of surveillance data. This prevents an accurate quantification of risk. However, the UK has surveillance evidence indicating the UK remains free of *Rhipicephalus sanguineus* except for the occasional report from quarantine kennels.

Also known as the brown dog tick, *R sanguineus* has a global geographic distribution. It has been implicated as a vector of several human and animal pathogens, including *Rickettsia conorii,* the causal agent of Mediterranean spotted fever (MSF). MSF is a serious disease in humans, causing a variety of non-specific symptoms. It can result in death without early treatment.

Qualitative risk assessments have been conducted considering the risk of incursion of tick-borne diseases following the change in the pet travel rules for the UK. In particular, it focused on MSF carried by *R sanguineus*. Studies summarised that the risk of *R sanguineus* potentially infected with MSF being introduced to the UK by travelling pets under the previous regime was low. The studies suggested that the risk under harmonised EU pet travel rules would increase to medium, and that a proportion of the *R sanguineus* ticks – generally lower than 15 per cent – could be infected with MSF.

The risk of the tick vector becoming established in the UK environment is said to be negligible, due to current climate conditions. The UK is, therefore, not expected to suffer many cases of MSF, although an occasional case is possible.

Other arthropod-borne diseases associated with travelling pets are not within the scope of this article, although they are important. These include leishmaniosis, babesiosis, heartworm and ehrlichiosis, and readers should refer to other sources for further information.

Implications of changes

Financial impacts

Speculative costs have been calculated based on the impact of diseases (including human disease costs), and the costs of controlling and eliminating them. Defra economists have estimated this to be £10,000 a year for rabies. Regarding ticks and tapeworms, studies inferred costs would be £38,000 per case of MSF and £231,000 per case of AE.

Impact on businesses

The carriers (ferries and airlines that transport pets) undertook documentation checks under the previous regime. Carriers continue to do this under the new EU-harmonised rules, although details of what is expected of them have changed. The impact is expected to be broadly cost-neutral, relative to the previous regime.

The measures do, however, have an indirect impact on businesses (those providing pet quarantine services and some veterinary practices). Defra anticipated providers of quarantine services would be affected, not by an increase in regulatory cost, but by a reduction in revenues, as the requirement for pets from an unlisted third country to enter six months of quarantine would no longer apply. Conversely, however, increased numbers of illegally imported pets and/or those entering on falsified documents could mean an increase in the number of animals being seized for quarantine. Owners of seized pets largely foot the bill – a scenario not even considered in the Defra risk assessment report.

The reduction in the number of blood tests and tick treatments translates into reduced revenues for veterinary practices, although this could be offset by an increase in business overall due to the greater number of pets travelling abroad as rules are relaxed. The decline in revenue from tick treatments will affect vets abroad, while the change in blood test requirements for UK pet passport holders is more likely to affect veterinary practices here.

Although hard to quantify, it is as likely a reduction in revenue from blood sampling will be negated by an increase in people wishing to travel within the relaxed rules, and an increase in sales of relevant parasiticides and through the issuing of passports (Figure 4).

Impacts on British public and animal welfare

It would appear the Government overlooked the possibility of a sudden increase in puppies being imported from eastern European countries for sale in the UK. The issues associated with this are broad. Animal welfare issues exist regarding the transportation of pups across long distances, while the overbreeding of animals at foreign puppy farms has welfare implications. Puppies imported into the UK from higher rabies risk zones for sale to members of the public is another risk. Potentially, puppies being imported for sale from eastern Europe may increase instances of falsified documentation or rabies injections given under the recommended age. Worst of all, criminals may illegally import sought-after breeds to make a quick buck. The list goes on.

A significant increase in the number of illegal imports has been noted, with the City of London Corporation admitting 80 puppies into quarantine throughout 2012. Most of these were younger than eight weeks of age, and were picked up on presentation to veterinary surgeries. Many more may have gone undiscovered. At this point, it is worth reminding veterinary surgeons that responsibility for illegal imports rests with local authorities, usually their trading standards or environmental health departments.

The scope of this issue is wide and warrants further investigation, demonstrated, perhaps, by the sudden increase in media coverage of the topic. Hopefully, Defra will seriously consider the issues in its five-year review of the changes in legislation in 2017, but, preferably, take action far sooner.

Summary

The threat of infraction demanded a change in pet travel rules to harmonise with EU regulations, and Defra responded by completing a detailed report about the impact of any changes to PETS. Public health issues, especially regarding protection from imported zoonoses, were put first and foremost. Consideration was also given to businesses that might have been affected by change, although arguably perhaps, not enough was done to research this area.

However, was there a potential over-focusing on public health implications, and a disregard of the veterinary diseases, including babesiosis, leishmaniosis, ehrlichiosis and heartworm? Was there a lack of anticipation of animal welfare implications regarding increased puppy trafficking? Should the impact on members of the British public who buy these puppies have been anticipated?

Worst case scenario – a rabid puppy is imported illegally and sold to a British family. The puppy bites, subsequently infecting an unsuspecting child with rabies. The passport is up to date and signed, so the family does not concern itself overtly. If rabies is not treated immediately, it is incurable. The potential consequences are chilling.

• So the question remains: should increased puppy trafficking have been foreseen, and what will the longer-term effects be? Watch this space…

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Figure 1. Legislation changes have provoked an increase in the movement of certain “desirable breeds” across the channel from eastern Europe for sale in the UK.

Figure 2. Rabies may be transmitted to any mammal via a bite from an infected animal.

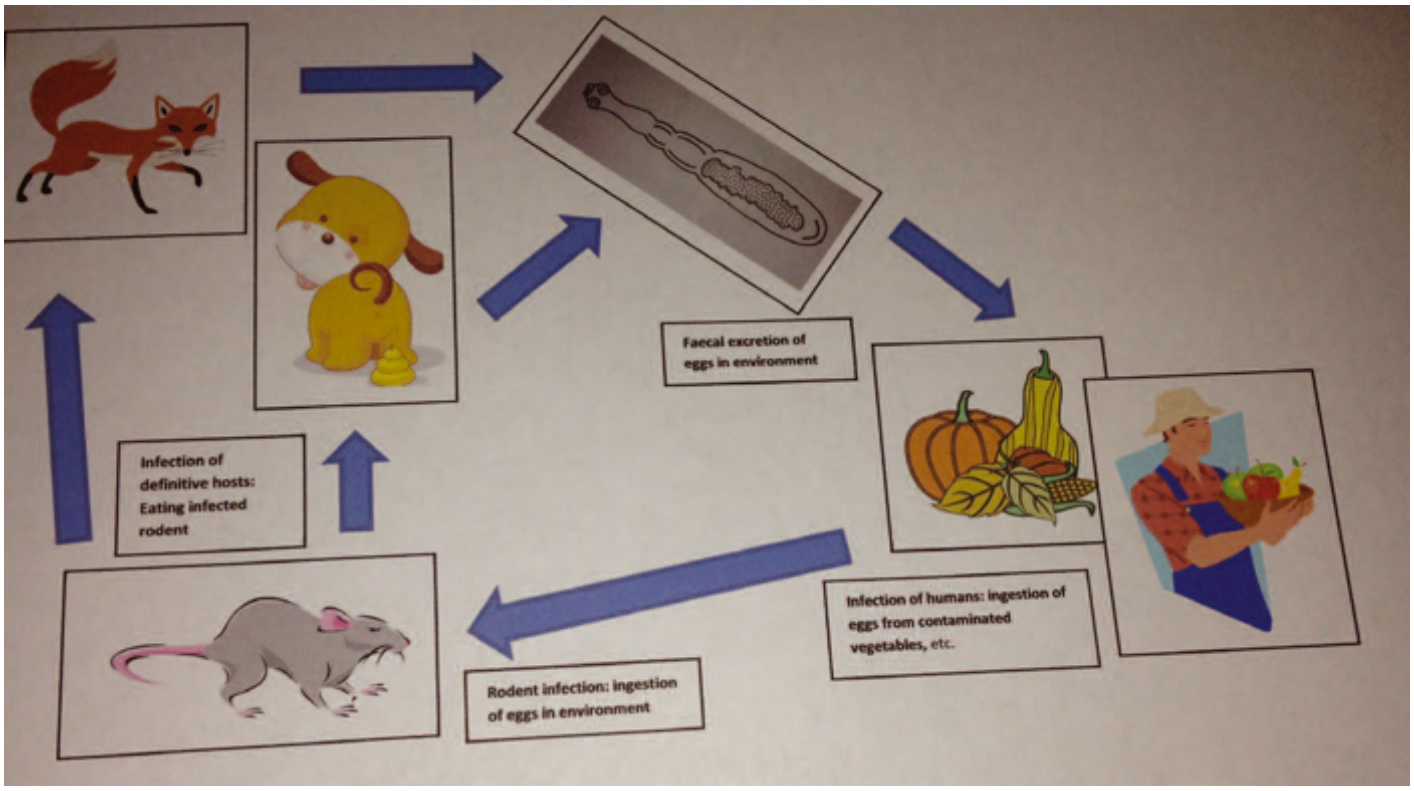

Figure 3. Life cycle of the tapeworm *Echinococcus multilocularis*.


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Figure 4. An increase in people wishing to travel with pets has been seen following the relaxation of the PETS rules.