Introduction

Rabies is a serious disease which affects all warm-blooded animals, including humans, and is almost invariably fatal once symptoms have developed. Whilst the risk of rabies entering the UK is very low, it remains a high priority to protect the UK against incursion of this disease and to safeguard our rabies-free status.

Defra has recently revised and published a draft Rabies Control Strategy, which sets out a framework for how an incident or outbreak of rabies in England and/or Wales would be managed.

The Control Strategy describes the general control options that have been identified for the most likely scenarios for cases of classical rabies virus and the rationale for such controls. In general we have avoided prescribing exactly how and when individual controls should be applied as we need to retain the necessary flexibility so that each situation can be dealt with on a case-by-case basis appropriate to the particular circumstances. We do however want to understand in a bit more detail the practicalities of the control options as there may be some scope in clarifying the circumstances under which they are more likely to be used, less likely or indeed ruled out altogether. This consultation therefore seeks views specifically on the use of control options though we welcome general comments on all aspects of the document.

Q1. Do you have any general comments on the Rabies Control Strategy?

The text below contains a summary of information on scenarios and control options that are considered in more detail in the draft Control Strategy, together with a list of questions. Many of the questions are left deliberately open - please refer to the Control Strategy for information on the Government’s position on individual control options, where this has been established. Do not feel that you have to respond to all the questions if you do not wish to do so. Please note that views are not sought on the following areas which sit outside of the Control Strategy’s remit:

- Responding to cases of rabies in humans (separate guidance issued by the Department of Health).
- Detailed operational instructions for how to deal with an outbreak (Defra’s and the Welsh Government’s Contingency Plan for Exotic Animal Diseases covers these arrangements).
- Arrangements in Scotland (separate contingency planning arrangements are in place).
Scenarios

There is a large range of possible scenarios for a rabies outbreak or incident, from a contained case of an individual pet animal, to the highly unlikely worst case of a nationwide outbreak involving both wildlife and domestic animals. To determine the type of controls that might be appropriate under different circumstances, a range of possible scenarios have been considered, whilst recognising that each case will have to be dealt with individually on a case-by-case basis. For the purposes of responding to the consultation it may be helpful to bear the following scenarios in mind:

- **Minor case**: most likely scenario – the case is identified swiftly in a domestic pet dog or cat, history of movements is known and no other cases are identified although contacts will be identified and controlled.
- **Localised case**: a small urban rabies outbreak affecting a limited number of domestic pets in a localised area.
- **Major outbreak**: a potential widespread scenario with disease having spread to other domestic animals, either within the same locality or more widely across the country.
- **Wildlife outbreak**: as per major outbreak scenario but with the unlikely circumstance that the disease spreads into wildlife.

Control Measures

The use of measures to control the spread of rabies, even in cases where it seems unlikely that an animal has been in a position to infect others, is very likely to be instigated given the serious nature of even a small risk of rabies. Measures will be focused on containing and eradicating the disease as quickly as possible to protect public and human health and to prevent the disease from becoming established in any animal population.

Control measures will be put in place immediately upon suspicion, though the results of laboratory testing and a detailed history may be needed to identify whether wildlife measures are necessary in addition to those for domestic animals. A timetable will need to be established which agrees an exit strategy - the point at which controls will formally end.

There are various control measures that could be used in a rabies outbreak, depending on the severity of the incident and the likely spread of the disease. Whilst each outbreak will have its own specific circumstances we should be able to assess the potential application of these measures based on the experiences of other countries and our own scientific, veterinary and practical expertise. We are seeking views on the following control measures:

**Domestic animals**

- Tracing
- Surveillance
- Declaring Infected Areas
● Vaccination
● Destruction and detention
● Movement restrictions
● Behavioural Restrictions (leashing and muzzling)
● Animal gatherings
● Control of strays
● Communications/raising awareness
● Livestock controls

Wildlife

● Vaccination
● Destruction
● Surveillance

Q2. Should any other control measures be considered in this strategy? Should any of the listed control measures be ruled out?

Q3. What are the issues that need to be considered when determining an exit strategy? Do you have any views on when individual control measures should end?
Domestic Animals

Tracing

The tracing of animal movements is used to identify the source(s) of disease and limit its spread, by ensuring that tracings and associated contact animals are identified and controlled.

If a rabies case in England or Wales is confirmed, tracing all animals that have been in contact with the case will be essential. Rapid and effective control will depend on establishing whether the first case found is the first in the country and to what extent there has been opportunity for further spread.

The most likely point of entry of the rabies virus into the UK is a dog or other animal imported illegally into the country. This poses particular challenges, as involvement in illegal activity may make an owner or importer less cooperative. This may require Government to work closely with law enforcement and/or customs officials to establish the source of the outbreak.

Q4. If a stray or wild animal presents with rabies how should Government attempt to trace its movements?

Q5. What role can non-governmental organisations play in helping to trace animals?

Surveillance

Surveillance controls are put in place to monitor possible further spread of disease. In a case where rabies first presents in a domestic animal, we will work to identify all contact animals. Contact animals can be considered as being either:

- **high risk**: which might include definite contact with the suspect animal, evidence of biting or wounds, changed behaviour combined with no previous vaccination against rabies.

- **low risk**: an animal that has had possible but unconfirmed contact with the suspect case, or shows no evidence of behavioural changes or biting or wounds which may be combined with a previous vaccination against rabies.

If the animal has been unsupervised at any point during the possibly infectious period, or in the scenarios mentioned above, surveillance of the wider animal population (domestic and/or wildlife) may be instigated. Notification provisions in the Rabies (Control) Order 1974 could be of assistance in requiring the notification of the death of animals. Raising awareness of the possibility of infected animals would also be necessary in order that people could report uncharacteristic behaviour.

Q6. Under what circumstances should surveillance be instigated? How long should it last?

Q7. What elements should make up a set of surveillance controls?
Declaring an Infected Area

The Rabies (Control) Order 1974 allows Defra/Welsh Government to impose a number of restrictions on movement, premises, gatherings and actions through declaring infected areas. How far these powers are utilised would depend on the nature of the outbreak. Whether to declare an Infected Area will be a decision taken by the relevant Chief Veterinary Officer.

In an outbreak where it was considered that animals in the vicinity surrounding the Infected Area were at risk, Defra would instigate a communications campaign which would focus on responsible pet ownership and publicising measures that should be taken by the general public and pet owners for their own and their pets’ safety.

Q8. Are there particular circumstances when an Infected Area should always be declared?

Q9. Should any additional measures be undertaken in the vicinity surrounding an Infected Area where animals are considered to be at risk?

Destruction and detention

Any domestic animal that is suspected as having been infected by rabies will be humanely destroyed.

Q10. Are there any circumstances under which animals suspected of being infected may be detained in quarantine rather than destroyed?

Movement restrictions

Restrictions on the movement of pet animals could be introduced once an Infected Area has been established. Movement restrictions could mean either confining animals to their owners’ premises or controlling the movement of pets in and out of an Infected Area.

Q11. Under what circumstances should the restriction of pet animals to the owners home be considered? What should the criteria be for home restrictions?

Q12. Do you have any information on the likely costs of enforcement?

Q13. What are the welfare issues that need to be considered?

Q14. Under what circumstances should movement in and out of an Infected Area be enforced?
Vaccination of domestic animals

Vaccination can be used to control the spread of disease in domestic animals. Decisions about whether to advise or require vaccination, the area a vaccination programme should cover and determining and monitoring the level of vaccine uptake required need to be made during the early stages of each rabies incident or outbreak. When a decision is taken to use vaccination, government can act to ensure that the supplies of vaccine and the resource needed to carry out a vaccination campaign will be focused on where they are needed most.

There are a number of practical issues associated with the use of vaccination that would also need to be considered including:

- **Supply**: Control via vaccine would be slow due to the lag time in (a) vaccine production and (b) immunity development following vaccination.
- **Enforcement**: the particular circumstances of an outbreak may necessitate the need to target vaccination in a specific area and to make uptake compulsory.
- **Costs**: The costs associated with a vaccination campaign (including procurement and distribution) would need to be met.

Q15. Are there particular circumstances when you think vaccination should or should not be used?

Q16. Should vaccination be voluntary or compulsory?

Q17. If compulsory how would vaccination be enforced? What are the barriers to enforcement? If voluntary how would vaccination uptake be monitored?

Q18. Should vaccination be targeted or made generally available within an Infected Area? If targeted, what criteria should be taken into account?

Q19. Should vaccinated animals be identified? If so how?

Q20. What are the barriers to the supply, distribution and take up of vaccination? How can these be overcome?

Q21. If a rabies outbreak is suspected or confirmed in wild animals, under what circumstances should a domestic animal vaccination programme be considered?
**Behavioural Restrictions**

The key behavioural restrictions that could be enforced in an Infected Area are:

- **Leashing:** Requiring dogs to be on leads at all times when not on their owners’ premises.
- **Muzzling:** Requiring dogs to be muzzled when outside their owners’ premises.

These restrictions could simply be encouraged through communications activities, or could be required and enforced as part of an Infected Area.

Q22. Is it practical to require all dogs to be on a lead or muzzled?

Q23. What are the benefits/drawbacks to leashing/muzzling? Are there particular circumstances when one or the other should be used?

Q24. If compulsory, how would these measures be enforced? What would the practical challenges be?

Q25. Do you have any information on the current stocks and types of muzzles available?

**Animal gatherings**

Animal gatherings within a declared Infected Area could be banned under the provisions of the Rabies (Control) Order 1974. However, the only way to ban a dog or cat show taking place elsewhere in the country under the terms of the Order would be to extend the Infected Area to include this location.

The alternative to banning an animal gathering would be to require dog and cat shows to be licensed which would allow shows to go ahead with certain restrictions such as requiring all participating animals to be vaccinated prior to the gathering and housed separately.

Q26. Under what circumstances should animal gatherings be banned?

Q27. Would licensing animal shows be an effective compromise? Is it practical to license individual animal shows across the country?
Control of strays

The control of strays is the responsibility of the local authority and is necessary to prevent stray or uncontrolled animals becoming a reservoir for the disease. Local authorities also have the power to seize animals (as do the police) if the owner fails to comply with any control provisions. Local authorities will need to locate detention facilities within their area. Local authorities should have implementation plans for dealing with rabies outbreaks that will include identifying potential holding areas for stray animals. They should work closely with animal welfare shelters on monitoring of stray animals and when considering options for control.

The enforcement of these controls would require a significant commitment of local authority time and resources so the likelihood of using this control method would increase in line with the severity of the incident. If an animal from the stray population presents with rabies, then the control of stray animals will be an essential disease control measure.

Close cooperation between the Food and Environment Research Agency (FERA) and local authorities will be necessary to minimise the risks posed by both feral (i.e. wild) and stray cats as it is likely to be difficult to differentiate between the two types.

Q28. Are animal welfare charities likely to accept stray/feral animals in the event of an outbreak?

Q29. How could local authority resources/expertise be best deployed in dealing with stray animals in the event of a rabies outbreak?

Q30. What other options are there for managing the risk from stray/feral animals?

Livestock controls

The Control Strategy does not explicitly consider the use of control measures on animals (including livestock and other herbivores) classified as dead end hosts as they are unlikely to transmit rabies. However such animals may still be caught up in control measures should an outbreak occur as, for example, farmers and vets can be at risk from cattle infected with rabies if they undertake a detailed clinical examination. The application of proportionate controls will need to be determined depending on the specific circumstances of the incident or outbreak.

Q31. What control options need to be considered for livestock in the event of a rabies outbreak?
Communications/raising awareness

An important control measure in all scenarios is informing the public and raising awareness, particularly among veterinarians and pet owners.

Rabies is a notifiable disease in animals and humans. Communications encouraging reporting of suspicion of the disease will need to be developed in conjunction with the relevant local authority and key stakeholders.

An increase in reporting of possible cases is likely as soon as an outbreak is declared, as vets adjust from a scenario where clinical signs are unlikely to arouse suspicion, to a position where clinical signs could indicate the disease. A helpline will be set up for members of the public to report either wild or domestic animals behaving strangely or biting incidents. This could be a national or local helpline, depending on the scale of the outbreak.

Until the extent of an outbreak is known, all animal bites received by pets or the human population within the designated area will need to be treated as potentially infected and will need to be reported as quickly as possible to a vet or doctor. Communications campaigns reinforcing this message will need to be undertaken by local authorities and stakeholders in conjunction with Defra and/or Welsh Government. Department of Health/HPA would be responsible for human health aspects of bites.

Q32. During ‘peacetime’, how can we best balance the need to maintain levels of awareness amongst veterinarians and animal welfare organisations, whilst avoiding overstating the risk of rabies, in order to encourage suspect cases to be reported.

Q33. How is communication/awareness raising with members of the public best achieved in an outbreak?

Q34. What should the key elements of an effective communications campaign be?

Q35. Are there alternative means by which the public can report animals they suspect may have rabies?
Wildlife

Vaccination

Vaccination is, in principle, the preferred method of controlling the spread of rabies in wildlife. Once rabies is confirmed in wildlife, a vaccination programme in the relevant area should commence immediately, even if there is no evidence of onwards transmission. The need for control without delay is supported by modelling work.

Wildlife rabies vaccination should continue for two years after the last confirmed case, and during this time routine testing of wildlife in the general area would be expected.

Q36. If a rabies outbreak is suspected or confirmed in domestic animals, under what circumstances should a wildlife vaccination programme be considered?

Q37. Are there circumstances when control of wildlife through vaccination may not be possible or desirable?

Q38. What are the practical issues associated with vaccination of wildlife in both urban and rural environments?

Destruction

Advances in vaccination techniques mean that it should be possible to vaccinate widely through a potentially Infected Area and keep destruction of at risk animals to a minimum. Initial modelling of disease spread among foxes and costs of vaccinating and culling may indicate the circumstances under which destruction might be preferable.

Q39. Are there circumstances when destruction of wild animals would be preferable to vaccination?

Surveillance

In any scenario involving wildlife, researching and undertaking appropriate surveillance into the numbers of badgers and feral cats present in the area surrounding the outbreak, together with identifying the effect the local habitat is likely to have on fox numbers should be considered in order to establish the different species that will need to be targeted and their likely population density.

Q40. Under what circumstances should surveillance rather than vaccination/destruction of wild animals be used as the primary control measure?