VMD reaffirms safety of Leptospira vaccines in dogs

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Routine update to adverse event data for L2 and L4 dog vaccines, and reminder for vets to tailor vaccination programmes for individual animals.

The VMD is aware of media reports and concerns raised on social media following cases of adverse events in dogs given vaccines containing two or four strains of Leptospira bacteria. The VMD confirms that the benefits of theses vaccines outweigh the risks of use. With overall incidence of adverse events for L2 and L4 vaccines remaining rare.

Vets and pet owners should agree on a tailored vaccination plan for each dog, based on local disease risk and other potential risks listed in the Summary of Product Characteristics (SPC)/ product information.

Update on adverse event incidences

There are a number of vaccines authorised in the UK containing either two (L2) or four (L4) strains of Leptospira. Based on the latest analysis performed for these products, taking place in December 2025, the incidence of animal adverse events for all L2 vaccine products combined is 0.016%; for L4 vaccine products this figure is 0.040%.

This means that, the VMD has received fewer than 2 adverse events for L2, and fewer than 4 for L4, for every 10,000 estimated animals treated.

The overall incidence of adverse events for both L2 and L4 vaccine products is therefore considered to be rare.

Incidences of death

Based on the most recent data received for these products, the incidence of animal adverse events involving deaths, including euthanasia, for all L2 vaccine products combined is 0.0017%; for L4 vaccine products this figure is 0.0033%.

This means that, the VMD has received fewer than 1 animal adverse event involving death for L2 and for L4, for every 10,000 estimated animals treated.

The overall incidence of adverse events involving death for both L2 and L4 vaccine products is therefore considered to be very rare.

This incidence figure is based on all reports we received, including:

- reports where more than one product was used
- reports when the product was used off-label, that is, not according to manufacturer’s recommendations
- reports where, on further evaluation, there were other reasons for the adverse event occurring

For comparison, previous incidence figures can be found in the 2023 update: Leptospira vaccination

in dogs - GOV.UK

Vaccine Availability

The VMD is aware of concerns from veterinarians and members of the public that some Marketing Authorisation Holders (pharmaceutical companies) are withdrawing their Leptospira vaccines containing two strains from the market. We would like to reassure pet owners that vaccines containing two strains of Leptospira are available. The VMD cannot prevent products from being withdrawn from the market. Further information on products authorised in the United Kingdom can be found on the Product Information Database.

What is an adverse event

Adverse events are any observation in animals that occurs after any use of a Veterinary Medicinal Product (VMP), whether or not considered to be product-related, that is unfavourable and unintended. This includes side effects or situations where the product has not worked as expected.

Post authorisation monitoring

The VMD is constantly reviewing adverse event report data that we receive to ensure that the benefits of each UK licensed veterinary medicinal product outweigh the risk posed by their potential side-effects.

More information on how the VMD calculates incidences is located here: Calculation of adverse event incidence for veterinary medicines - GOV.UK.

Information for veterinarians

The majority of reported signs are linked to allergic type reactions which are well recognised potential side effects of any vaccine and are presented on the product literature.

Vets are advised to note that for some brands of L4 vaccines, administering a vaccine that is cold may cause local/systemic reactions, therefore please read the summary of product characteristics (SPC) for these products and ensure these vaccines are always used at room temperature.

The veterinary surgeon and the client should discuss and agree a vaccination programme for an individual animal. This should be based on the local epidemiological situation and risk of leptospirosis, balanced with the potential risks as outlined in the SPC. Careful consideration should be given to whether the additional protection provided by vaccines containing four strains of Leptospira versus those containing two is necessary in each individual dog, depending on their individual circumstances.

Dogs that travel from the UK to mainland Europe where there is a known risk of infection with Bratislava and Grippotyphosa may require vaccination with all four strains.

All suspected adverse events should be reported to the Marketing Authorisation Holder.

Notes:

- Information on veterinary medicinal products can be found on the VMD's Product Information Database.
- Pharmacovigilance updates are published on gov.uk at https://www.gov.uk/guidance/urgent-safety-updates-for-veterinary-medicines; this also includes any updates involving non-veterinary medicines used in animals. To receive these pharmacovigilance updates via email, please click on the 'Get emails about this page' button. A rolling 6-month list of Summary of Product Characteristic (SPC) changes for veterinary medicines can be found on the monthly medicines update page Vet practice & supply (vmdconnect.uk).

https://www.gov.uk/government/news/vmd-reaffirms-safety-of-leptospira-vaccines-in-dogs