

EQUESTRIAN



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Equine vaccination – is it really necessary? Veterinary surgeon Lee Pritchard of the Calweton Veterinary Group, Callington, Cornwall, explains the considerations owners should make when deciding whether to vaccinate.

Is vaccination really necessary?

It is estimated of all the horses in the United Kingdom, less than 40 per cent are vaccinated against equine influenza. There are not many viruses which spread as quickly as influenza and although it is rarely fatal (except in donkeys and ill horses) it is a debilitating illness which can cause severe disruption to equestrian activities.

Equine influenza is caused by an orthomyxovirus, with epidemics usually arising when one or more acutely infected horses are introduced into a susceptible group. The incubation period of influenza can be from 24 to 36 hours and classic signs include a fever, nasal discharge, enlarged lymph nodes under the lower jaw and a dry cough. Mildly affected horses can show signs for two to three weeks, severely affected



Lee Pritchard

horses can show signs of disease for up to six months. There are a number of secondary complications which can occur such as pneumonia, pleuropneumonia and bronchitis resulting from invasion of the damaged respiratory tract cell lining by bacteria. A presumptive diagnosis of influenza can be made from clinical

signs but throat swabs should be taken to confirm the diagnosis.

The equine influenza virus, like the human influenza virus, is continually evolving which means even after infection or vaccination the equine population remains susceptible and there is a continued challenge for the vaccine manufacturers.

Regulations

When considering regulations for competition we have to consider manufacturers' guidelines and the rules of the Federation Equestre Internationale (FEI) and British Horseracing Authority (BHA). The FEI and BHA are two governing bodies which have specific vaccination requirements which need to be fulfilled in order to compete at events under their rules. Unfortunately, the guidelines from the manufacturers, FEI and BHA are all different and so timing of vaccination is crucial in order to fall within the regulations.

Manufacturers' recommendations

There are four current licensed vaccinations for influenza in the United Kingdom at the time of writing. They all have slightly different vaccination programme requirements and so advice can be given by your veterinary surgeon as to timings for the product used or further information can be gained from data sheets. Each vaccination contains different combinations of equine influenza virus strains based on previous influenza outbreaks. Some of these vaccines are more



All horses should be vaccinated against equine influenza, advise vets.

BHA regulations

The current BHA regulations for influenza are as follows:

- Any horse which intends to race under BHA rules of racing must have received two primary vaccinations not less than 21 days and no more than 92 days apart. A third injection must be given not less than 150 days and no more than 215 days after the second component of the primary vaccination course. Booster vaccinations must be given within 365 days of the last dose. No vaccinations can be given on the day of a race in

which the horse is entered or on any of the six days prior to the race

- Under BHA rules, in the event of failure to comply with any of the requirements, the trainer or owner of the horse are liable to disciplinary action and the horse may not be permitted to run in any race under BHA rules

MORE INFORMATION

For more information and to keep up-to-date, visit the BHA website at www.british-horseracing.com

Vaccination for other diseases

Tetanus

Tetanus is caused by a bacterium, *Clostridium tetani* found in the soil. It gains entry to the bloodstream through open wounds. As the bacterium has an incubation period of one to three weeks, the original wound has often healed before signs have developed. These include: severe muscle spasm of the head/neck causing difficulty chewing, erect ears, tremors initially developing into whole body spasm. Treatment is by intensive nursing care but unfortunately 90 per cent of unvaccinated horses which contract tetanus will die. There is an effective vaccine given as a primary course of two injections four weeks apart followed by a first booster within 365 days of the second

injection. Timings for booster vaccinations vary with most given every two years, but some can last up to 36 months depending on the vaccine used. The vaccine is inexpensive, and extremely effective so all horses, ponies and donkeys should receive this life saving vaccination

Equine herpesvirus

Equine herpesvirus is classified into four types (EHV 1, 2, 3 and 4) of which EHV-1 and EHV-4 are the major causes of disease. EHV-1 causes abortion in mares, respiratory disease and a neurological form exists causing paralysis. EHV-4 causes significant respiratory disease and is more common in young horses. There are effective vaccines available

against EHV-1 and 4 given as a primary course of two injections four to six weeks apart followed by booster injections every six months. To assist with prevention of abortion in brood mares they should be vaccinated in the fifth, seventh and ninth month of pregnancy

Strangles

Strangles is caused by *Streptococcus equi*, a highly contagious bacterium causing respiratory disease. A vaccine is available to reduce clinical signs and incidence of lymph node abscessation. The vaccine is given as a primary course of two injections under the upper lip four weeks apart followed by booster injections every three months

'up-to-date' than others in terms of the strains of virus they contain and their mode of action at stimulating an immune response.

Should I vaccinate for influenza?

Unless you are competing under FEI or BHA regulations, choice of whether to vaccinate for influenza lies solely with you, the owner of the horse. In the author's opinion, if we consider the disastrous spread of influenza virus among unvaccinated horses in both South Africa and Australia over recent years, it provides us with a reminder why we should maintain effective vaccination programmes in the UK. Certainly assessments of risk of contraction of influenza can be made but it is my opinion

all horses should be vaccinated for influenza unless they live in a closed and isolated environment.

Do horses eventually develop immunity?

If we refer to the outbreak of influenza in Australia in 2007, it did not actually start as a problem arising from unvaccinated horses. In fact, it spread through appropriately vaccinated horses. However, had vaccines with the most up-to-date strains been used, this multi-million dollar disaster would have most likely been avoided. This shows us perhaps the question to ask is not whether an animal will develop immunity to influenza, but rather how up-to-date is the immunity my horse is developing?

Summary

- A vaccine stimulates an immune response against a specific disease
- Licensed UK vaccinations are available for equine influenza, tetanus, equine herpes virus and strangles
- Equine influenza is a highly contagious virus which spreads rapidly among unvaccinated horses causing severe disruption of equestrian activities
- Equine influenza vaccination is governed by manufacturer's guidelines, the Federation Equestre Internationale (FEI) and the British Horseracing Authority (BHA)

FEI regulations

The current FEI regulations for influenza are as follows:

- Any horse which intends to participate in an FEI competition must have received at least a primary course of two vaccinations given between 21 and 92 days apart, a third injection within six months and 21 days after the date of the second injection of the primary course. Booster vaccinations must be given within 365 days of the last dose
- Since January 1, 2005, all

horses competing in FEI competitions require an influenza vaccination within six months + 21 days of the competition. If competing regularly within FEI events, this essentially means that six-monthly booster influenza vaccinations are required. If you are planning on attending an FEI event, the vaccination must not be given within seven days of arrival at the event

- All vaccinations currently available and licensed for horses in the United Kingdom are accepted by the FEI

irrespective of the route of administration as long as they are given by a veterinary surgeon and according to the manufacturer's instructions. All details of the vaccination including the name of the vaccine, batch number, date of administration and route of administration has to be recorded in the horse's passport

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For more information and to keep up-to-date, visit the FEI website at www.fei.org