Innovax-ILT (avian infectious laryngotracheitis and Marek’s disease vaccine (live recombinant))

An overview of Innovax-ILT and why it is authorised in the EU

What is Innovax-ILT and what is it used for?

Innovax-ILT is a veterinary vaccine used to protect chickens against infectious laryngotracheitis (ILT) and Marek’s disease (MD).

ILT is an infection of the airways which may affect growth and decrease egg production in chickens. The disease is caused by a herpesvirus and can be mild (causing watery eyes, nasal discharge and mild inflammation of the windpipe) or severe, causing dyspnoea (difficulty breathing), respiratory depression and coughing up of blood.

MD is another herpesvirus infection of chickens which can cause paralysis of the wings and legs and causes tumours in various organs. Chickens become infected at an early age via inhalation of dander (flakes of skin) containing the virus which can remain infectious for several months after being shed from the body. Birds infected with MD virus can be carriers and shedders of the virus for life.

Innovax-ILT contains a live modified strain of turkey herpesvirus called strain HVT/ILT-138, which has been modified so that it will produce proteins from the ILT virus.

How is Innovax-ILT used?

Innovax-ILT is available as a concentrate and solvent to be made into a suspension for injection and can only be obtained with a prescription. The vaccine can be given to one-day-old chicks as a single injection under the skin in the neck. Protection against ILT starts 4 weeks after vaccination and lasts 60 weeks. Protection against MD starts 9 days after vaccination and lasts for life.

How does Innovax-ILT work?

Innovax-ILT is a vaccine containing turkey herpesvirus serotype 3, a type of herpesvirus which is closely related to MD virus but does not cause disease in chickens. Vaccines work by ‘teaching’ the immune system (the body’s natural defences) how to defend itself against a disease. The turkey herpesvirus strain HVT/ILT-138 has been modified so that it will produce the glycoproteins gD and gI which form part of the outer coat of the ILT virus. When Innovax-ILT is given to chickens, the animals’
immune system recognises the virus as ‘foreign’ and makes antibodies against it. In the future if the animals are exposed to a similar virus the immune system will be able to respond more quickly. This will help protect the chickens against ILT and MD.

What benefits of Innovax-ILT have been shown in studies?

A field trial in chickens was performed to evaluate the effects of the vaccine against ILT and MD. Mortality was low, no disease related signs were observed and the condition of the chickens was good throughout the trial, indicating effectiveness of the vaccine.

Chickens were taken from the field trial and challenged (exposed to infection) in the laboratory to demonstrate protection after vaccination. To evaluate the effects of the vaccine against MD, chickens vaccinated either with Innovax-ILT alone or Innovax-ILT mixed with Nobilis Rismavac (a vaccine which also protects against Marek’s disease) were infected with very virulent strains of the MD virus. Chickens showed significant protection after both vaccination with Innovax-ILT alone and Innovax-ILT mixed with Nobilis Rismavac. When Innovax-ILT is given mixed with Nobilis Rismavac protection against MD starts at 5 days after vaccination.

In a second challenge study the effectiveness of the vaccination with Innovax-ILT alone and Innovax-ILT mixed with Nobilis Rismavac was also examined by evaluation of protection after infection under laboratory conditions with the ILT virus. Chickens showed varying levels of protection after vaccination with either Innovax-ILT alone or Innovax-ILT mixed with Nobilis Rismavac. The level of protection in general was higher when Innovax-ILT was given alone. When Innovax-ILT was applied mixed with Nobilis Rismavac, the start of protection against ILT was delayed by up to 10 weeks after vaccination.

What are the risks associated with Innovax-ILT?

Since Innovax-ILT is a live vaccine, the vaccine strain is excreted from vaccinated birds and may spread to turkeys. Safety studies have shown that the strain is safe for turkeys. However, precautionary measures must be followed in order to avoid direct or indirect contact between vaccinated chickens and turkeys.

There are no known side effects. For the full list of restrictions, see the package leaflet.

What are the precautions for the person who gives the medicine or comes into contact with the animal?

Safety information has been included in the summary of product characteristics and the package leaflet for Innovax-ILT, including the appropriate precautions to be followed by healthcare professionals and animal owners or keepers.

As the vaccine is stored in liquid nitrogen, it is important that any handling is done in a well-ventilated area and that precautions are taken when preparing the vaccine. For further information see the summary of product characteristics.

What is the withdrawal period in food-producing animals?

The withdrawal period is the time required after administration of a medicine before an animal can be slaughtered and the meat used for human consumption. It is also the time required after administration of a medicine before eggs may be used for human consumption.

The withdrawal period for meat and eggs from chickens treated with Innovax-ILT is ‘zero’ days, which means that there is no mandatory waiting time.
Why is Innovax-ILT approved?

The European Medicines Agency decided that Innovax-ILT’s benefits are greater than its risks and and it can be authorised for use in the EU.

Other information about Innovax-ILT

Innovax-ILT was granted a marketing authorisation valid throughout the EU on 3 July 2015.

Further information on Innovax-ILT can be found on the Agency’s website:

This overview was last updated in 10-2021.