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## Nasym (*bovine respiratory syncytial virus vaccine, live*)

An overview of Nasym and why it is authorised in the EU

### What is Nasym and what is it used for?

Nasym is a vaccine used to protect cattle against bovine respiratory syncytial virus, a disease that affects their airways. Nasym reduces shedding of virus and respiratory signs such as raised breathing rate, difficulty breathing, watery eyes and runny nose. Nasym contains bovine respiratory syncytial virus strain Lym-56.

### How is Nasym used?

The medicine can only be obtained with a prescription and is available as a lyophilisate (a freeze dried powder) and solvent to make either a nasal spray or an injection.

For cattle from 9 days of age, the vaccine is sprayed into each of the animal's nostrils using an intranasal applicator. The vaccine starts to be effective 3 weeks after nasal vaccination and protection lasts for 2 months following vaccination. Revaccination is given by injection into the muscle 2 months after the initial vaccination and then every 6 months.

For cattle from 10 weeks of age, the vaccine is given as a single injection into the muscle followed by a second injection into the muscle 4 weeks later. The vaccine starts to be effective 3 weeks after vaccination into the muscle and protection lasts for 6 months. Revaccination is given as a single injection into the muscle 6 months after the initial vaccination course and then every 6 months.

### How does Nasym work?

Nasym is a vaccine. Vaccines work by 'teaching' the immune system (the body's natural defences) how to defend itself against a disease. Nasym contains a strain of bovine respiratory syncytial virus that is weakened and does not cause the disease. When an animal is given the vaccine, the animal's immune system recognises the virus as 'foreign' and makes antibodies against it. When the animal comes into contact again with this or a similar virus, these antibodies together with other components of the immune system will be able to kill the viruses and help protect against the disease.

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## **What benefits of Nasym have been shown in studies?**

The effectiveness of Nasym has been shown in 7 laboratory studies in which vaccination of cattle with Nasym, either using the nasal spray route or injection into the muscle, reduced both shedding of virus and signs of respiratory disease, such as increased rate of breathing, difficulty in breathing and watery or mucky eyes. These studies involved non-vaccinated animals given a dummy vaccination and all animals were artificially exposed to bovine respiratory syncytial virus. The studies confirmed the vaccine starts to be effective 3 weeks after both nasal vaccination and injection into the muscle, with effectiveness lasting 2 months after nasal vaccination and 6 months after injection into the muscle.

## **What are the risks associated with Nasym?**

The most common side effect with Nasym (which may affect up to 1 in 10 animals) is a slight change in the consistency of the faeces.

For the full list of side effects and restrictions of Nasym, see the package leaflet.

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

In case of accidental self-injection, medical advice should be sought immediately and the package leaflet or label shown to the doctor.

## **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.

The withdrawal period for meat from cattle treated with Nasym is 'zero' days, which means that there is no mandatory waiting time.

## **Why is Nasym authorised in the EU?**

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

## **Other information about Nasym**

Nasym received a marketing authorisation valid throughout the EU on 29 July 2019.

Further information on Nasym can be found on the Agency's website:  
[ema.europa.eu/medicines/veterinary/EPAR/nasym](http://ema.europa.eu/medicines/veterinary/EPAR/nasym).

This overview was last updated in May 2019.