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ProZinc (*human insulin*)

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

What is ProZinc and what is it used for?

ProZinc is a veterinary medicine used to treat cats and dogs with diabetes. It contains the active substance human insulin.

How is ProZinc used?

ProZinc can only be obtained with a prescription and is available as a suspension for injection (40 IU/ml). It is given as an injection under the skin twice daily for cats and once daily for dogs either at the same time or immediately after a meal. The correct dose is determined individually for each animal depending on weight and needs to be adjusted depending on the response to treatment. For dogs, if there is insufficient response to treatment after 4 – 6 weeks, the dose and/or frequency can be changed.

For more information about using ProZinc, see the package leaflet or contact your veterinarian or pharmacist.

How does ProZinc work?

Diabetes is a disease in which the pancreas does not make enough insulin to control the level of blood glucose (sugar) and/or when the body is unable to use insulin effectively. This results in increased blood glucose levels and associated clinical signs such as polyuria (increase in urine volume), polydipsia (increase in water intake) and weight loss. ProZinc is an insulin to which protamine and zinc have been added to create crystals. These are absorbed more slowly after injection and take longer to reach their target in the body than naturally produced insulin. ProZinc works in the same way as naturally produced insulin with a longer duration of action, and helps glucose enter cells from the blood. By controlling the level of blood glucose, the symptoms and complications of diabetes are reduced.

The active ingredient of ProZinc, human insulin, is produced by a method known as 'recombinant DNA technology': it is made by yeast cells into which a gene (segment of DNA) has been introduced that makes the yeast cells able to produce insulin.

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What benefits of ProZinc have been shown in studies?

In a field study involving 139 diabetic cats of various ages and breeds, after 6 weeks of treatment with ProZinc average blood sugar levels decreased and clinical signs improved, for example average body weight increased; 116 out of 139 cats (84%) were considered to be treated successfully.

In an EU field study involving diabetic dogs, ProZinc was as effective as an authorised veterinary insulin, with improvement of at least one blood sugar measurement and at least one of three clinical signs: bodyweight, polyuria and polydipsia. After 12 weeks, 113 out of 134 ProZinc treated dogs (84%) were successfully treated, compared to 91 out of the 111 control dogs (82%).

What are the risks associated with ProZinc?

The most common side effect during treatment with ProZinc (which may affect more than 1 in 10 animals) is hypoglycaemia (low blood glucose levels) which may result in signs such as hunger, anxiety, unsteady movement, muscle twitching, stumbling or sinking in the rear legs and disorientation. These hypoglycaemic events are generally mild in nature. A glucose containing solution or gel and/or food is required to be given to the animal immediately.

ProZinc must not be used in cats or dogs which are hypersensitive (allergic) to insulin or any of the other ingredients. Because of its prolonged action, it must also not be used for the short-term management of diabetic ketoacidosis (a serious complication of diabetes with high levels of ketones in the blood).

For a full list of the side effects and restrictions with ProZinc, see the package leaflet.

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

Accidental self-injection can result in clinical signs of low blood glucose levels which can be treated by taking sugar by mouth. There is a low chance of an allergic reaction in sensitised people.

If the product is accidentally self-injected, medical advice should be sought immediately and the package leaflet or label shown to the doctor.

Why is ProZinc authorised in the EU?

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

Other information about ProZinc

ProZinc received a marketing authorisation valid throughout the EU on 12 July 2013.

Further information on ProZinc can be found on the Agency's website: ema.europe.eu/medicines/veterinary/EPAR/prozinc

This overview was last updated in March 2019.