Vetsulin®: Handle with care

• Once regulated on Vetsulin®, the dog should be rechecked every 2–4 months.
• Additional adjustments in dose should be made no more frequently than every 5–7 days.
• A blood glucose curve should be evaluated to determine if regulation is achieved.
• Reweigh the dog. Overall dosage of Vetsulin® should be modified for significant weight gains.
• Obtain the owner’s overall impression of the dog’s progress.

The pet should be returned for evaluation 6–7 days after starting Vetsulin®.

Monitoring and adjusting the dose:

• Monitor and record urine glucose and/or ketone bodies.
• Monitor and record water and food consumption.

Vetsulin® (porcine insulin zinc suspension): 40 IU/ml concentration

Vetsulin®, from Merck Animal Health, is the first registered veterinary insulin for the treatment of diabetes mellitus in both dogs and cats. Vetsulin® is presented in a 10 mL glass vial at a concentration of 40 IU per mL of suspension. To avoid dosing errors when administering Vetsulin® to dogs, it is important to use a U-40 syringe. Vetsulin® may be used as a U-40 syringe alternative that accurately doses in 0.5 IU/mL increments.

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Vetsulin® therapy is ideally prescribed for newly diagnosed diabetic dogs or in cases where a change in insulin metabolism is indicated. Caution should be exercised when changing from one insulin product to another.

**When health status is known and diabetes mellitus confirmed:**

- Explain thoroughly to the dog owner what diabetes mellitus is, that achieving regulation may take time, and that health status is known and diabetes mellitus confirmed.

**Dosing and Administration:**

**Parenteral Insulin Injection Therapy:**

- The initial recommended dose is 0.5 IU insulin/kg body weight. Initially, this dose should be given two times daily by PIM or subcutaneously in the area behind the scapulae to the mid-lumbar region and alternating sides.
- For dogs with a body weight exceeding 40 kg, the initial recommended dose is 40 IU.

**Dog owners should be taught how to inject using a U-40 syringe system:**

- The full cartridges are supplied in cartons of 10, 2.7 mL cartridges.
- The peak activity following subcutaneous administration of vetsulin® in cats is 24 hours. In diabetic cats, the peak activity following subcutaneous administration of vetsulin® was 24 hours.

**Adverse Reactions:**

- Hypoglycemia was reported in 6 cats (8 total occurrences). Lethargy not associated with hypoglycemia was reported in 6 cats.
- Vomiting, lethargy, diarrhea, decreased appetite, and/or weight loss were included in the assessment of safety. Hypoglycemia (defined as blood glucose < 50 mg/dL) was observed in 6 cats (7 total occurrences).

**Further Adjustments in Dosage:**

- Further adjustments in dosage may be necessary with changes in the cat's diet, weight, or weight gain, or if the cat develops concurrent infection, inflammation, or neoplasia, or an additional endocrine or other medical disorder.

**Notes:**

- Dogs and cats known to have a systemic allergy to pork or pork products should not be treated with Vetsulin®.
- Cats weighing less than 2.7 kg are at risk and should be monitored closely.
- When health status is known and diabetes mellitus is indicated, caution should be exercised when changing from one insulin product to another.

**Starting Vetsulin®:**

Vetsulin® therapy is ideally prescribed for newly diagnosed diabetic dogs or in cases where a change in insulin metabolism is indicated. Caution should be exercised when changing from one insulin product to another.

**In clinic:**

- Lesbian dogs or other medical conditions. Many diseases may affect insulin metabolism.
- Introduce an appropriate diet.
- Begin treatment in cats with diabetes mellitus (zinc insulin suspension).

**The following clinical observations occurred in the field study following treatment with Vetsulin® and may be directly attributed to the drug or may be secondary to the diabetic state or other underlying conditions in the dogs:**

- Hematuria, vomiting, diarrhea, pancreatitis, non-specific polyneuropathy, and/or a mildly thickened subcutaneous tissue reaction and the second as a mild bruising.
- Overdosage can result in profound hypoglycemia and death.

**References:**