TROUBLESHOOTING DIABETIC DOGS AND CATS RECEIVING THE “UPPER RANGE” OF INSULIN DOSES

LOSS OF CONTROL OF A PREVIOUSLY CONTROLLED DIABETIC DOG OR CAT

“CORRECT HANDLING OF INSULIN
1. Using proper syringe
2. Storing in fridge
3. Shaking vs. rolling as appropriate, depending on type of insulin
4. Appropriate injection technique
5. Replacing with a new bottle if the current insulin is expired, discolored, cloudy, or flocculent

Is the insulin being handled and administered correctly?

No
Correct the problem

Refer to “Monitoring Algorithm”

Yes

RELAPSED OR NEVER REGULATED DIABETIC

“UPPER RANGE” = highest dose typically used in uncomplicated diabetes, achieved after stepwise dose increases
Dog: 1–1.5 U/kg*
Cat: 5 U/cat*
*author opinion

Are any concurrent medications that can cause insulin resistance being administered?

Yes

Refer to “Monitoring Algorithm”

No

“CONCURRENT MEDICATIONS THAT CAN CAUSE INSULIN RESISTANCE
1. Oral or topical steroids (including otic, ophthalmic, and cutaneous preparations)
2. Progestins (including exposure to owners’ skin creams)
3. Cyclosporine

Discontinue medications and re-evaluate in 2 weeks

Can the medications be discontinued safely within 2–4 weeks?

Yes

Not sure

Consult with a specialist

No

Increase insulin dose by 10% or ½ unit/patient (whichever is greater) then adjust based on BGC and clinical signs

Refer to “Monitoring Algorithm”
TROUBLESHOOTING DIABETIC DOGS AND CATS RECEIVING THE “UPPER RANGE”¹ OF INSULIN DOSES

1. Severe dental disease
2. Intact female
3. Obesity
4. Pot-bellied appearance, panting, bilateral symmetrical alopecia

**COMMON PHYSICAL EXAM FINDINGS NOTED IN DIABETICS WHO ARE DIFFICULT TO REGULATE**

- Severe dental disease
- Intact female
- Obesity
- Pot-bellied appearance, panting, bilateral symmetrical alopecia

**BASELINE DIAGNOSTICS**
- CBC, chemistry with electrolytes
- U/A, culture, UPC
- Blood pressure
- T4 in cats
- Triglycerides in susceptible dog breeds

**2ND LEVEL DIAGNOSTICS**
- Abdominal ultrasound
- Thoracic radiographs
- ACTH stimulation/LDDS test
- PLI
- TLI
- IGF-1 in cats

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**BASELINE DIAGNOSICS**

**2ND LEVEL DIAGNOSTICS**

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**MONITORING ALGORITHM**

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**HYPOGLYCENIA ALGORITHM**

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**MONITORING ALGORITHM**

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