

Stabilising the Healthy Diabetic Dog

Stabilisation Options

Initial stabilisation of otherwise healthy Diabetic dogs is usually achieved by either blood or urine glucose monitoring. Selection of the appropriate method should involve discussion with the owner regarding financial and time-commitment constraints. It is a widely held myth that Diabetics should routinely be stabilised with blood glucose curves. As a general rule, curves can be reserved for evaluation of complicated cases. Dogs can be hospitalised for stabilisation for convenience but ideally they should be kept in their home environment and subjected to their usual exercise and dietary regimes. This assists ensuring stability on return to their normal home environment. Day to day consistency is essential to success.

Stabilisation involves the following steps:

- A consistent dietary regime is planned with the owner
- A consistent exercise regime is planned with the owner
- A method of monitoring (*blood or urinalysis: see below*) is selected with the owner
- Insulin therapy is started at approx 0.5 iu / kg usually with a lente insulin
- Based on monitoring results insulin dose is changed every 2-3 days as necessary
- This procedure is constantly repeated every 2-3 days until either then dog stabilises or insulin resistance is demonstrated (*> 2iu insulin per kg bodyweight per injection*)

Urinalysis

Advantages cheap, easy, suitable for at-home stabilisation

Disadvantages slow, somogyi over-swing can cause confusion

Procedure

Urine collected first thing each morning and tested for glucose

If result is: negative - insulin dose is decreased

 slight positive - no change in dose

 strong positive - insulin dose increased

Blood Glucose Analysis

Advantages quick and accurate method

Disadvantages more expensive, strict sample timing protocol

The timing of sample collection is crucially important in interpretation. Samples should aim to identify the nadir blood glucose concentration (*lowest point of the day*) using any given dose of insulin. In most cases this means sampling approximately six hours post-insulin administration.

Procedure:

Collect blood for glucose estimation six hours after administering insulin

If blood glucose is: <3.5 mmol/L - decrease insulin dose

 3.5-7.5 mmol/L - leave insulin unchanged

 >7.5mmol/L - increase insulin dose

Clinical Reminders

Leave 2-3 days between insulin dose changes to allow new dose to have full effect

For small insulin increases/decreases, a change of approximately 5-10% total dose is often appropriate. If larger changes are required 10-20% may be appropriate.

If insulin dose exceeds 2iu/kg bodyweight per injection "insensitivity is confirmed. (See *Axiom Fact sheet 4.2 for advice*).

Ensure owner has knowledge of the signs and emergency treatment of hypoglycaemia should it develop during stabilisation.