



LIPHOOK

EQUINE HOSPITAL

Forest Mere, Liphook
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www.TheLEH.co.uk

The Karo Light Syrup Oral Sugar Test

As laminitis is frequently a disease that follows consumption of high-sugar grazing and is related to high postprandial insulin concentrations, oral sugar testing with either glucose or corn syrup has become a popular means of indicating increased laminitis risk associated with PPID and/or EMS. Horses and ponies demonstrating an excessive insulin response to oral sugars have been shown to be at higher risk of developing laminitis when subsequently grazed. Logically, the insulin response to oral sugars mimics the effects of grazing, whereas the resting insulin concentration may indicate the risk relating to whatever the horse had been eating in the several hours prior to testing the resting insulin value. Thus, a general assessment of appropriate dietary management can be made.

Oral glucose administration has been popular in UK although the test not infrequently fails due to palatability issues as the animal either refuses the feed or eats the glucose slowly. In contrast, corn syrup appears far more palatable and is generally welcomed by the recipient and carries significant advantages over the glucose test. Recently work conducted at the Royal Veterinary College and at Liphook Equine Hospital has validated the Karo Light Corn Syrup Test at a higher dose than has been previously used leading to a better balance of safety and accuracy.

Protocol

1. Withhold feed for 3-8 hours beforehand (e.g. allow 1 slab of hay overnight)
2. OPTIONAL: Collect baseline blood sample for insulin (red top tube)
3. Administer Karo Light Corn Syrup at a dose of 45 mL per 100 kg bodyweight, either by dosing syringe or in a little chaff.
4. Collect blood samples for insulin and glucose (red and grey top tubes) at some point between 60 – 90 minutes post-dosing

Karo Light Corn Syrup can be purchased in 473 mL bottles online (e.g. www.amazon.co.uk) or alternatively call the laboratory (01428 729509 or lab@theleh.co.uk) and we will post a kit to you with the syrup, appropriate collection tubes and dosing syringe as required.



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