

Vetpath is a specialist veterinary laboratory dedicated to providing our clients with the finest laboratory diagnostic service. A team of veterinary pathologists and medical scientists with extensive experience in veterinary diagnostic pathology forms the core of the Vetpath team.

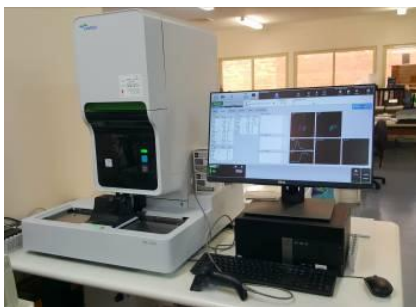
VN News

MAY 2018

New haematology analyzer

VETPATH has a new haematology analyzer; the Sysmex XN-1000™

This is a replacement for our CellDyn 3700, and should be especially useful for samples with low WBC counts, as well as direct counting of nRBC and canine reticulocytes. The Sysmex also uses a smaller sample volume compared to the CellDyn 3700, which will help to provide a full automated CBC on smaller patients.



The Sysmex XN-1000™

State of the art technology is not the only benefit of sending blood samples into a reference laboratory for analysis. Provision of accurate laboratory data requires a massive effort behind the scenes. Behind every CBC is an extensive process including twice daily quality control procedures, participation in an international quality assurance program, trained scientific staff and review of every smear by a board-certified clinical pathologist.

Blood smear evaluation remains the cornerstone of veterinary haematology, regardless of the analyzer being used. Vital information on erythrocyte, leukocyte and platelet morphology will be missed if you rely entirely on the numerical data. Preparation of a good smear and adequate staining are essential, and evaluation of poorly made and stained smears may provide misleading information.

Confidence in your laboratory data is essential for confidence in your diagnosis.

Should skin be surgically prepared before biopsy?

No.

Surgically preparing the skin will remove the surface crust, infectious agents, and keratinocytes, and damage pustules. These elements may provide valuable information needed for histological diagnosis. If present, intact pustules are also very useful.

What about for tissue culture?

Ideally, submission of deeper tissues is preferred to avoid culture of normal skin surface microflora. An alcohol swab can be applied to the surface. Remember also that pus is composed of dead and dying neutrophils and bacteria. Live organisms are more likely to be found in the wall of the lesion.

TICARCILLIN is no longer available and will be removed from the bacterial sensitivity panels.

ACTH and LDDST test protocols – fasted, timing, interferences

Knowing how and when to perform adrenal function tests is important to accurately diagnose and monitor these conditions.

Fasting

Vets often ask whether they should fast a dog before ACTH or LDDST testing. There is conflicting advice about this. The most important point is not to stress the dog too much before or during the testing as this can interfere especially with the LDDST results.

When testing for hyperadrenocorticism (LDDST or ACTH stimulation test), it is considered preferable, though not essential, if the dog is fasted for 6-8 hours before the test is performed. Lipaemia does not interfere with the cortisol test used as VETPATH, unless it is severe. The effect of feeding on the LDDST test is unknown, and it is probably better not to feed the patient during the test.

Fasting is not recommended before the ACTH stimulation test used for monitoring. In fact, for monitoring purposes, the Trilostane should be given with food (the drug is absorbed better if given with food), and the ACTH test run 3-6 hours later.

Timing

For monitoring of treatment for hyperadrenocorticism, an ACTH stimulation test is recommended 10 days, 4 weeks and every 3 months after initiating Trilostane therapy, and for Mitotane 8-9 days after starting treatment, 48 hours after a change of dose, and every 2-6 months for maintenance.

Specific testing for hyperadrenocorticism should not be done in unwell or highly stressed animals, and sedation can interfere with both tests. Testing for hypoadrenocorticism can be done in unwell animals. Anticonvulsant therapy may cause an elevated ACTH response.

Interferences

All corticosteroids interfere with adrenal function tests, however, if required for a potentially Addisonian dog, a single low dose of dexamethasone dose should not interfere with the ACTH stimulation test.

Recommended withholding periods for corticosteroids before testing ACTH response:

Injectable short acting: 7 days
Dexamethasone: 48 hours, except if potential Addisonian
Oral: 2 weeks
Topical: 2 weeks
Depo-Medrol injection: 2 months



Test protocols

Low Dose Dexamethasone Suppression Test

Dose: 0.01 mg/kg
Administration: Intravenously
Collection: Pre, 4 hours and 8 hours

ACTH Stimulation Test

Synacthen ACTH

Formulation: 250µg/vial
Dose: 250µg (1 vial) per dog OR 5µg/kg to a maximum of 250µg per dog
Administration: Intravenously
Collection: Pre and 1 hour post

Synacthen ACTH DEPOT

Formulation: 1mg/vial
Dose:
Body weight < 15kg - 0.25mg/dog
Body weight > 15kg - 0.5mg/dog
Administration: Intramuscularly
Collection: Pre and 2 hour post

References:

Consensus Statement J Vet Intern Med 2013;27:1292-1304
[Am J Vet Res](#). 1992 May;53(5):716-20.



NATA Accredited
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