Newsletter June 2012

QML Pathology | Vetnostics

REMEMBER OUR CONTACT NUMBER:

1300 VET QML (1300 838 765)

Our QML Pathology Vetnostics contact number 1300 838 765 has now been in operation for over four years.

For a fast, efficient service, this number will take you directly to the following options:

(1) Results enquiries
(2) Added tests
(3) Speak to a Pathologist
(4) Order veterinary vaccines
(5) All other enquiries/ Vetnostics Manager.

Calls will be charged at local rates from landlines. Mobile charges may vary.

NEW PRICE LIST

Please find enclosed with this newsletter a copy of our new price list, effective 16th July 2012. As per the July 2011 price list it includes the addition of a new user-friendly test profile table and the expansion of several of our profiles to include more analytes. This new pricelist now also includes the costing for our non-interpreted profiles and the tests included in these new profiles are listed on the table on the back page.

All prices have been reviewed, with some of the tests that are sent to external laboratories, e.g., frozen samples, having had a larger price increase reflective of the costs of transport.

QML Pathology Vetnostics still remains extremely cost competitive compared to other laboratories. As a policy, we try to keep our send away tests as low priced as possible (compared with our competitors) to allow Veterinarians to investigate their cases as comprehensively as possible.

If you have any further queries or would like an excel spreadsheet of our price list, please contact Shaun Hickey, Vetnostics Manager on (07) 3121 4013 or shaun.hickey@qml.com.au.

NON-INTERPRETED PROFILES NOW AVAILABLE

QML Pathology Vetnostics now offers specific non-interpreted profiles for dogs, cats and horses. These are exceptional value for money whilst still providing extensive haematological and blood biochemistry analysis together with Total T4 for cats and Fibrinogen for horses. Please see table below for the available non-interpreted panels.

Feline Non-interpreted Profile	Includes: Routine Body Function + Total T4	**Cost: $46.00** (ex. GST)
Canine Non-interpreted Profile	Includes: Pancreatic Body Function	**Cost: $46.00** (ex. GST)
Equine Non-interpreted Profile	Includes: Equine Health and Fibrinogen	**Cost: $44.00** (ex. GST)

The reduced pricing available for additional tests requested with profiles (TT4, Urinalysis, Urinalysis + Urine Culture, FIV & FeLV serology and USG) will also apply for non-interpreted profiles, however results of these additional tests will not be interpreted either.

Pathologists and medical consultants ARE NOT available for result/case comment or discussion for non-interpreted profiles.

Non-interpreted profiles can be upgraded to an interpreted profile to include pathologist +/- medical consultant comments and case discussion at an additional fee of $50.00 (ex. GST). Panels must be upgraded **PRIOR** to phone discussion or issue of a written interpretation.

Important Information: Stickers are no longer required to be added to request pads as all new printed QML Pathology Vetnostics request forms have a section for non-interpreted profiles. If you would like updated request pads to be sent to your clinic please e-mail the Vetnostics Manager at shaun.hickey@qml.com.au and replacement pads will be forwarded as soon as possible.

Newsletter June 2012

QML Pathology | Vetnostics

Now Available iPad/iPhone App

Real-Time Results... Anytime, Anywhere.

Introducing Path-Way, a new web-based application by QML Pathology, providing you with real-time access to our database.

Instant Access

As soon as the result is available at the laboratory, it is available at Path-Way - enabling you to view your clients' results quickly, efficiently and securely over the Internet.

With no paper to handle, instantaneous delivery and secure access, Path-Way ensures your clients' results are available real-time, anywhere, on time, all the time.

New Features

Increased search functionality, including new filters

Unique username and password

Update your account details online

View pending requests

Print off hard copy reports in a familiar format

View interactive charts

View cumulative results

To register, visit www.path-way.com.au

Path-Way

CREDIT CARD PAYMENTS

As of **1st July 2012**, QML Pathology Vetnostics will no longer be able to accept payments from American Exress and Diner's Club credit cards. QML Pathology offers a wide range of payment options including Visa, Mastercard, Cheque and Direct Deposit.

Please contact our Accounts Department on 1800 350 046 for electronic funds transfer details and account enquires.

STAFF DISCOUNT

Veterinary Staff Discount

As of **16th July 2012**, the Veterinary clinic staff discount will cease. This is due to the difficulty in altering the billing and the availability of cost effective non-interpreted profiles.

'USG FOR FREE' AND DISCOUNTED COMBINATION TESTING

In an effort to allow for more comprehensive testing with our profiles, Urine Specific Gravity (USG) will be performed free of charge whenever a USG is requested with ANY of the profiles listed within the Pathology Profiles section of the request form.

To receive the 'USG for Free' all you need to do is to ensure that you tick the specific gravity box listed within the Urine Examination section of the request form together with your profile request.

The current complete list of tests offered at a significantly discount price when requested with ANY of the listed profiles is now as follows:

TEST	Normal Price (ex. GST)	Reduced Price (ex. GST)
Total T4	$37.00	**$17.00**
Urinalysis	$30.00	**$17.00**
Urinalysis + Urine Culture	$57.00	**$36.00**
FIV & FeLV	$67.00	**$44.00**
Urine Specific Gravity	$21.00	**FREE**

As per current price list (effective July 2012).

These reduced prices will also apply for any of these tests that are subsequently 'added on' to an initial pathology profile already performed.

Newsletter June 2012

QML Pathology | Vetnostics

Image courtesy of photographer Nick Eggington.

DIAGNOSING CANINE PANCREATITIS: What's The Value in Pancreatic Lipase Testing?

Vetnostics Pathologist

Dr Brett Stone BVSc (Hons), BBiomedSc (Hons), M.Phil, MACVSc

Whilst canine pancreatitis is a relatively common disease, making a definitive diagnosis of pancreatitis is not always straightforward. This is because the clinical signs seen in dogs with pancreatitis (e.g., vomiting, abdominal pain, anorexia, diarrhoea) are rather non-specific, and there are multiple testing modalities available for diagnosing canine pancreatitis, NONE of which are 100% sensitive or specific.

Historically, the diagnosis of pancreatitis has been made using a combination of appropriate clinical signs, haematology, blood biochemistry (amylase/lipase) and/or ultrasonographic findings. More recently, canine pancreatic specific lipase (cPL) testing has been developed and marketed as a superior method for the diagnosis of canine pancreatitis. Reported sensitivities and specificities for each of these modalities for the diagnosis of canine pancreatitis are quite variable, as summarised below:

Test	Sensitivity	Specificity
Lipase	55 – 65%	73-100%
Amylase	60-90%	30-60%
Ultrasound	Up to 68%	-
cPL	43% - >82% (>82%*)	80% - 100% (>96%*)

**cPL sensitivity and specificity reported by IDEXX Reference Laboratories.*

Conditions other than pancreatitis may cause an increase in pancreatic lipase, as illustrated in one study (Haworth et al., (2011), whereby 41% of dogs with non-pancreatic acute abdominal disease (n=27) had a positive SNAP cPL result. Thus, since the initial introduction of cPL testing, further studies and increased clinical use have clearly demonstrated that cPL is not as sensitive and specific as that reported by the licensed distributors of this test in all clinical settings.

The reported sensitivity and specificity of any test also needs to be interpreted in context of the prevalence of disease within the population. For example, a positive cPL result is far more likely to be a 'false' positive in a healthy dog or in an unwell dog that lacks clinical signs typically associated with pancreatitis. This facet was well illustrated by Erb, Vet Clin Pathol (2011), using Spec cPL as a specific example:

> In a population of dogs with low (eg: 5%) prevalence, as may be expected in healthy dogs or in dogs without clinical signs consistent with pancreatitis; > 80% of positive results will be 'false positives' and nearly 100% of negative results will be 'true negatives' (using Sens = 93%, Spec = 78%).

There is excellent (>88% – 96%) agreement between SNAP cPL and Spec cPL results (Beall, 2011).

There is good correlation between routine serum amylase/lipase and Spec cPL results in dogs suspected of having pancreatitis (Jaensch, 2010). Approximately 90% of dogs with 'normal' Spec cPL results also had a 'normal' amylase or lipase result. Approximately 93% of dogs with an increased amylase or lipase results > 2 x above the upper reference limit had an increased Spec cPL result and

QML Pathology. | Vetnostics

Dr Brett Stone
Veterinary Pathologist

> 80% of dogs with any increase in amylase or lipase above the reference interval had an increased Spec cPL result. cPL may also be significantly elevated in azotemic dogs irrespective of whether pancreatitis is present.

In summary:

- False positive and false negative results still occur with cPL testing.
- A diagnosis of pancreatitis must be made based on a thorough clinical examination, appropriate clinical signs and preferably on a combination of results possibly from multiple modalities including; amylase/lipase, cPL and/or abdominal ultrasound.
- Due to the high likelihood of false positive results, we do not recommend cPL testing in dogs that do not have clinical signs consistent with pancreatitis, i.e., cPL should not be used in 'annual screening' or 'geriatric' profiles. Whilst a negative result in such dogs would indicate that they are highly unlikely to have pancreatitis, of what real value is this result/information? (why waste money?)
- There is reduced specificity for the diagnosis of canine pancreatitis using based on an increased serum lipase, amylase or cPL in azotemic dogs.
- If amylase or lipase is elevated > 2 x upper reference limit on routine biochemistry, there appears to be little/no additional advantage in then performing cPL testing.
- **cPL testing therefore appears to be of most value in those dogs with clinical signs consistent with pancreatitis and that have amylase or lipase results within the reference value or that have amylase or lipase results that are elevated but < 2 x the upper reference limit.**
- In-clinic/in-lab SNAP cPL test results are likely to be as accurate as Spec cPL testing by the reference laboratory.

References:

1. Beall, et al., 2011.Performance validation and method comparison of an in-clinic enzyme-linked immunosorbent assay for the detection of canine pancreatic lipase. J Vet Diagn Invest. 23, 115-119.
2. Erb. 2011. Prior probability (the pretest best guess) affects predictive values of diagnostic tests. Vet Clin Pathol. 40(2), 154-158.
3. Haworth et al., 2011. Clinical utility of the Snap cPL test in the assessment of acute abdominal disease in dogs. ACVSc Science week abstract.
4. Jaensch, 2010. Associations between serum amylase, lipase and pancreatic specific lipase in dogs. Comp Clin Pathol. Epub DOI 10.1007/s00580-010-1077-3
5. Mansfield, et al., 2012. Association between canine pancreatic-specific lipase and histologic exocrine pancreatic inflammation in dogs: assessing specificity. J Vet Diagn Invest. Epub DOI: 10.1177/1040638711433598
6. Neilson-Carley et al., 2011. Specificity of a canine pancreas-specific lipase assay for diagnosing pancreatitis in dogs without clinical or histologic evidence of the disease. AJVR. 72(3), 302-307.
6. Steiner, 2003. Diagnosis of pancreatitis. Vet Clin Small Anim. 33, 1181-1195.
7. Trivedi et al., 2011. Sensitivity and specificity of canine pancreas-specific lipase (cPL) and other markers for pancreatitis in 70 dogs with and without histopathologic evidence of pancreatitis. J Vet Intern Med. 25(6), 1241-1247.

Newsletter June 2012

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Image courtesy of photographer John Trif.

ADRENALS: What you won't find in a textbook

Vetnostics Small Animal Medical Consultant
Dr Sue Foster BVSc, MVetClinStud, FACVSc

PART 1: SIGNALMENT

Hyperadrenocorticism (hyperA)

1. *"If you see a Maltese >10 y.o. which does not have hyperA then adrenal function testing must not have been performed!!!"*

   Whilst this is my somewhat facetious comment, it may actually be true. If you do have an 11 y.o Maltese which has no clinical signs of hyperA, has normal ALP concentration (on a commercially performed laboratory assay) and has at least one normal adrenal function test, then I would be interested to hear from you (as I want to know if they do exist!). Vetnostics would consider running cortisols at no charge (ring me to organise).

2. It was long believed that Scottish Terriers had a breed-related increase in ALP with age.[1] That always seemed unlikely given the very high prevalence of hyperA in aged Scottish Terriers (they may well be like Maltese…i.e. any Scottie over 10 y.o. requires adrenal function tests!). Finally, there has been a thorough paper investigating clinically healthy, aged Scottish Terriers with increased ALP and investigated their adrenal function. Not surprisingly, the increased ALP was found to be associated with sub-clinical hyperadrenocorticism when rigorous testing was performed.[2]

3. Hypertriglyceridaemia can occur as a breed phenomenon in Miniature Schnauzers. There are now many papers on hypertriglyceridaemia in Miniature Schnauzers including papers on the association between cPLI increase, possible pancreatitis and hypertriglyceridaemia in this breed.[3] To the best of my knowledge, none of these recent papers have studied adrenal function tests concurrently to check whether clinical or sub-clinical hyperA is another cause of hypertriglyceridaemia or pancreatitis in this breed (or whether hyperA could interfere with cPLI testing!). Middle to old-aged Miniature Schnauzers definitely get hyperadrenocorticism (quite commonly diagnosed through Vetnostics with adrenal function testing) and their triglycerides improve after treatment suggesting that, in addition to breed-related hypertriglyceridaemia, hyperA must be on the DDx list for any Miniature Schnauzer of appropriate age with hypertriglyceridaemia, Hopefully, someone will do a careful study similar to that performed in Scottish Terriers and expose yet more myths and under-diagnosed hyperA!

4. In Australia, I see many late middle-aged to old Australian Cattle dogs with hyperA (both clinically and through Vetnostics). The number diagnosed through Vetnostics would seem to be much higher than expected for breed prevalence suggesting that the number of cases in this medium breed dog may be due to genuine predisposition rather than overall breed prevalence in Australia. In this breed, signs of hyperA can be very subtle and include slight roughening and colour change in the hair coat (can look as though coat just singed slightly, especially at the base of the neck), panting at rest on cool days, altered body shape and ruptured cruciate ligaments. Polydipsia and polyuria are not always present, ALP is not always increased and alopecia is never present (though some may be slow to regrow after a clip…watch after cruciate surgery!). HyperA in this breed is nearly always pituitary dependent. I have had one vet report adrenal-dependent hyperA in this breed (based, from memory, on ultrasound findings only, not endogenous ACTH concentration).

Newsletter June 2012

QML Pathology | Vetnostics

Dr Sue Foster
Veterinary Medical Consultant

VET VACCINES AND CONSUMABLES

QML Pathology has expanded its vaccinations catalogue to include vet vaccines and consumables.

- A wide range of vaccines including canine, feline and equine are available for sale at competitive prices.
- Our internationally recognised integrated cold chain network ensures the integrity and quality of our vaccines during transportation.
- Next day delivery is available (excluding weekends and public holidays) for practices located within metropolitan and regional centres throughout Queensland and northern New South Wales.
- Commonly requested veterinary consumables are now also available for purchase, including **MAX-ACT™ Clotting tubes**.
- All vet vaccine purchases are eligible for Win Rewards Points.

Your Rewards, Your Way
winrewards
Pfizer Animal Health

Ordered by calling 1300 838 765 (1300 VET QML) or by downloading the form from our website.

5. Similar to the published literature, other breeds diagnosed include Poodles, Pomeranians, Beagles, Boxers and Dachshunds.

6. The commonly cited figures for hyperA are that pituitary dependent hyperadrenocorticism (PDH) comprises 85% with adrenal tumours (ATs) comprising 15%.[4] I am often asked whether these figures are accurate in Australia as so many clinics diagnosing hyperA regularly struggle to even find a single adrenal tumour amongst their cases. Similarly, Vetnostics has very few endogenous ACTH assay results confirming adrenal tumours. It would be interesting to check with a well designed study but I suspect over 95% over hyperA cases in Australia are pituitary. Could it be related to dog size? A recent North American paper evaluating trilostane in dogs found that the mean weight of dogs with hyperA to be 20.7 kg (PDH 20.42 kg). I don't think many Australian vet clinics would have 20.7kg as the mean weight of their hyperA patients. I suspect this different breed population affects the ratio of PDH to AT and also dosing for trilostane (to be discussed in a future 'Adrenals' segment).

Hypoadrenocorticism (hypoA)

1. The most common breed category diagnosed with hypoA at Vetnostics has to be the Jack Russell/Fox Terrier group. Not all of these dogs will have electrolyte abnormalities as some will have a pure glucocorticoid deficiency. So if there are vague or suggestive signs in a 3-7 y.o. JRT or Fox Terrier, especially if there is no stress leucogram (or a "reverse stress leucogram" i.e. lymphocytes and eosinophils high normal or increased in a sick dog), consider doing an ACTH stimulation test.

2. The second most common breed would probably be Maltese. So yes, they get hyperA and hypoA. Whether the fact that they are a common breed influences disease incidence in this breed is unknown.

3. Similar to the published literature, other breeds diagnosed with hypoA at Vetnostics include poodles (all sizes), German Shepherds, German short-haired pointers, Great Danes and Portuguese Water Dogs.

References

1. Nestor DD et al. Serum alkaline phosphatase activity in Scottish Terriers versus dogs of other breeds. J Am Vet Med Assoc 2006;228:222-224
2. Zimmerman KL et al. Hyperphosphatasaemia and concurrent adrenal gland dysfunction in apparently healthy Scottish Terriers. J Am Vet Med Assoc 2010;237:178-185
3. Xenoulis PG et al. Serum triglyceride concentrations in Miniature Schnauzers with and without a history of probable pancreatitis. J Vet Intern Med 2011 25:20-25
4. Feldman EC. Evaluation of twice-daily lower-dose trilostane treatment administered orally in dogs with naturally occurring hyperadrenocorticism. J Am Vet Med Assoc 2011; 238: 1441-1451