

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

JANUARY 2015

Urine Dipstick Analysis

Urine dipstick analysis is an important component of the urinalysis and can be easily performed in the veterinary clinic.

The use of urine dipsticks was recently discussed at the annual conference of the American College of Veterinary Pathology. Examples of topics discussed at the lecture include how urine dipsticks are stored, how to use the dipsticks and which pads are useful in veterinary medicine.

Storage of urine dipsticks

Urine dipsticks should be stored in their original, airtight container at room temperature and out of direct sunlight. Take note of the expiration date and try to use the dipsticks before they are expired. Moisture is thought to be the most important interfering factor and therefore it

is important to not remove the desiccant package.

Urine samples

Urine for dipstick analysis should ideally be tested within 30 minutes of collection. If there will be a delay in analysis, the sample should be refrigerated and then returned to room temperature at the time of analysis. The temperature of the urine is an important consideration because many of the enzymatic reactions on the dipstick are temperature sensitive.

The sample should be mixed thoroughly and the dipstick should be placed horizontally into the sample. Make sure that you read the results at the appropriate time; this is especially important for the blood pad on the dipstick.

Which pads do we use?

Although purchasing strips with the most pads may seem like a good idea, this practice may be wasting money if you are paying extra for pads that are not



diagnostically useful. The only pads needed on urine dipsticks for veterinary patients are pH, protein, glucose, ketones, blood and bilirubin. Worthless reagent pads include specific gravity, urobilinogen, bacteria and leukocytes. The latter two reagents in particular have low sensitivity and specificity in veterinary species and do not replace wet microscopy for diagnosis of inflammation and infection.

Attention to the hints described above will help ensure accurate and repeatable urine testing occurs in your clinic. Please contact the laboratory if you need assistance with use and interpretation of urinary dipsticks.

Polyarthritis screen

Diagnosis of polyarthritis involves arthrocentesis of multiple joints. Although necessary, this can be expensive.

Vetpath has recently introduced a polyarthritis screen for assessment of multiple joints. The screen consists of a single full analysis providing total and differential white cell counts, protein concentration and slide assessment. Up to five additional joints can be submitted for a subjective assessment of cellularity and the percentage of neutrophils. The screen will therefore provide the necessary information to determine if there is an inflammatory response in up to six joints.

Synovial fluid can be submitted in an EDTA or serum tube, however note that EDTA samples are not ideal for culture and sensitivity (EDTA is bacteriostatic). Don't worry if only a small amount of fluid can be obtained from the joint; a diagnosis of inflammatory joint disease can usually be made from a well-made smear (see figure).

Please contact the laboratory for further information about the synovial fluid screen including the cost and turnaround time.

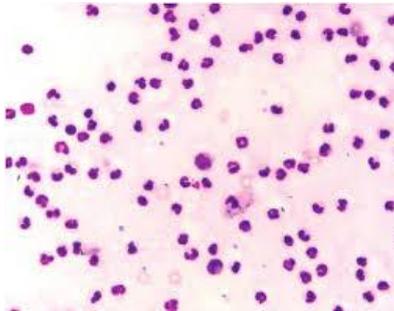


Figure: Synovial fluid smear from a joint with severe neutrophilic inflammation.

Beta Haemolytic Streptococcus cultures in horses

Vetpath strives to provide rapid culture turnaround times to assist veterinarians in providing prompt case management.

All pure growth cultures of Beta Haemolytic Streptococcus (BHS) in horses will now be reported without sensitivities in approximately 24 hours. All BHS are routinely susceptible to Penicillin (including Amoxicillin and Ampicillin) and therefore disc diffusion tests will not be performed.

Additional antibiotic susceptibilities will be available on request (at no charge) and mixed growth cultures will still be reported with susceptibilities to drugs routinely used in equine medicine.

Meet your pathologist!



Dr Jon Meyer is one of four boarded clinical pathologists at Vetpath. Jon graduated from the University of Pretoria in 1995 and after six years in private practice completed clinical pathology training at the University of Guelph. He is interested in all aspects of clinical pathology including haematology, cytology and endocrinology. When not at work Jon enjoys running, swimming and spending time with his family.



NATA Accredited
Laboratory Number 14776

Vetpath Laboratory Services

RECEPTION DIRECT +61 8 9259 3600
LOCAL COURIER PICK-UPS +61 8 9259 3666
AFTER HOURS MOBILE 0418 916 436
FACSIMILE +61 8 9259 3627
EMAIL enquiries@vetpath.com.au
WEBSITE www.vetpath.com.au

VETERINARY PATHOLOGISTS

Jenny Hill BVSc (Hons) Dip ACVP
John Jardine BVSc MMedVet (Path) Dip ACVP MRCVS
Jon Meyer BVSc DVSc Dip ACVP
Jason Stayt BSc BVSc Dip ACVP
Leanne Twomey BSc BVMS (Hons) PhD Dip ACVP