

**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

**MARCH 2018**

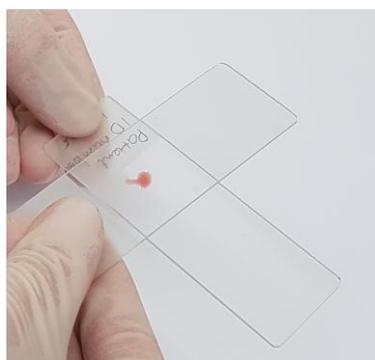
## **Fine needle aspiration of abdominal organs**

The November 2017 issue of the *Journal of Small Animal Practice* contains an excellent review of the current recommendations for achieving diagnostic samples with fine needle aspiration of abdominal organs.

This article is available for free online, and we encourage you to get a copy. The article includes general tips on performing fine needle aspiration, as well as information about cytological assessment of specific organs. Some of the highlights of the article include:

1. Risk versus benefit of FNA.
2. Performing an FNA including what gauge needle to use and different aspiration techniques.
3. How to prepare the specimen – smear preparation, suitable containers and labelling.
4. How to effectively stain with Diff-Quik.

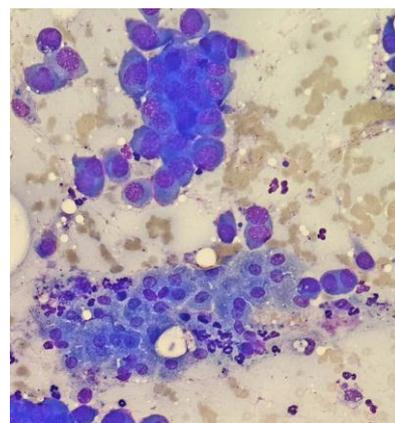
The how-to section of the article contains helpful photographs to illustrate the techniques being described (see figure below).



**Squash preparation of smears using a spreader slide.**

Specific organs discussed include the liver, kidney, spleen, pancreas, urinary bladder, prostate and abdominal lymph nodes. The article highlights the

potential reasons for aspiration of these organs, and what types of lesions are most likely to be diagnosed cytologically.



**Neoplastic cell population (top) with normal hepatocytes (bottom).**

**The full citation of the article is:** Liffman R and Courtman N. Fine needle aspiration of abdominal organs: a review of current recommendations for achieving a diagnostic sample. *Journal of Small Animal Practice*. 2017, 58 (11): 599 – 609.

Please contact the laboratory if you would like to discuss collection techniques for cytology with a pathologist.

## I have a faecal sample – what should I do with it?

There are a few options of tests to run on a faecal sample:

1. A **faecal wet micro** is a basic examination of a wet preparation of the faeces and evaluates for the presence of leukocytes and red cells, and gives an overview of the appearance of the faeces.
2. A **faecal analysis** provides more detailed information about the microscopic appearance of the faeces (both wet preparations and a Gram stain are examined) and is more sensitive for detecting protozoa (including Giardia), ova or yeasts.
3. A **concentration for cysts or ova** is a less extensive test than full faecal analysis, and includes a wet preparation for detection of helminths eggs, faecal protozoa and giardia cysts.



Hookworm egg

4. The **faecal occult blood test** can be performed separately or is included in a faecal analysis. It provides information about GIT blood

loss, but is affected by red meat and vegetables containing peroxidases (e.g. melon, broccoli, beetroot, etc.) in the diet. A red meat-free diet is recommended for 3 days before testing.

5. **Faecal culture and sensitivity** can be performed, either separately or with a faecal analysis, and provides information on the presence of *Salmonella sp.* or haemolytic *E. coli*.
6. A more extensive investigation for infectious diseases can be performed using a **faecal multiplex PCR panel** on the faeces, which can rule in or out the presence of multiple organisms. Different panels are available for dogs, cats and horses (adult and foals). A **faecal multiplex PCR plus** includes the faecal PCR as well as a wet preparation and concentration for cysts and ova.
7. A **faecal egg count** can be performed to look for nematode eggs, and is most commonly done on large animals.
8. If lungworm is suspected in horses or cats, a **lungworm flotation** (Baermann test) can be performed on faeces.

Faecal samples should be submitted in the appropriate container (not in a plastic bag!), and always remember that fresh is best!



## Coagulation screens

The coagulation screen performed at Vetpath includes a CBC, PT and PTT.

An **EDTA tube** should be submitted for the CBC component of the screen. The CBC includes a fibrinogen concentration, total solids protein and platelet count (or estimate if clumping is present). While a CBC can be performed on the citrate tube, there is a dilution effect from the citrate causing decreases in some parameters.

The **citrate tube** is used for the measurement of PT and PTT. It is vital that the correct amount of blood be placed in the tube to ensure that the citrate to blood ratio is correct (1:9). Under filling the tube can cause significant prolongation in clotting times. Paediatric tubes are available for small patients.



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