Welcome to the March edition of *Gribbles Veterinary’s Paws, Claws and Udder Things* newsletter. This month we feature a new promotion for the upcoming autumn season, a reminder of the importance of submitting blood films, the tragic tale of the leaking sample, some handy lab-tips plus a new *What’s up Doc!* challenge for the whole clinic.

As always, if you have any questions regarding the content of this newsletter, please do not hesitate to contact me directly.

Kevin Darling  
Group General Manager, Australasia  
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*New!* Liver biopsy sampling kit - for trace element testing

Autumn is an important time for monitoring trace element levels in production animals and while the analysis of liver samples collected at slaughter is a convenient method of achieving this, Gribbles Veterinary strongly recommends the collection of biopsy specimens by veterinarians as the preferred method for liver sampling:

- The veterinarian has the advantage of being on the farm to assess the stock, discuss issues with the farmer, and select the animals to be sampled.
- The identification of individual animals is not a problem, compared with logistics of carrying this out at slaughter.
- Any additional costs in carrying out a biopsy procedure are also mitigated - the meat works collection fees and any additional fees if the meat inspectors are requested to record tag numbers on the specimen containers are avoided.
- Time from collection to analysis is also typically faster, normally around one working day from time of sample receipt into the lab.
- The traceability of samples from collection to reporting is also clear, an important part of our Quality Management System’s compliance with the international quality standard, ISO 17025.
- Finally, our laboratory scientists also find biopsies much more convenient samples to work with.

However, due to the nature of the procedure, there are several problems that may occur with biopsy samples - the sample size may be insufficient to carry some analyses, contamination of the liver with other material such as adipose or connective tissue may occur, blood clots may be present which can dilute the sample or the sample may dessicate in transit.

**How much is enough?**

How much depends on the test or tests requested on a sample, and the relative sensitivity of the analytical method used.

Research has shown that the concentration of elements at different sites on the liver is reasonably homogeneous, and providing that a small aliquot is of a good quality, the laboratory can obtain reliable results on a surprisingly small sample.

*Continued overleaf*
Liver biopsy sampling kit

With recent investment in new technology, using prescribed accredited methods, a 100mg sample would be adequate for the 3 most common tests – copper, selenium and vitamin B12. Most veterinarians state their preference for elements for analyses when they suspect there may not be sufficient sample. Due to the inherent costs in sampling, the laboratory scientist will always attempt the analysis, dissect out any extraneous matter/blood clots, and give feedback on quality and weight of the sample if the accuracy of the results is impaired.

Collection and storage

The most common container used is a vacutainer, and this is a good choice. Larger specimen containers e.g. urine pots, are not advisable as desiccation of the liver (especially in smaller samples where the surface area relative to mass is very high) can occur rapidly due to the additional air space, effectively increasing the concentrations of elements present. Conversely, samples stored in saline can absorb fluid, diluting the components.

Biopsy Kits

In recognition of the above collection issues, Gribbles Veterinary can now provide free of charge, a biopsy sampling pack containing 50 snap top tubes (4mL), a label sheet for recording farm and animal IDs and information sheets summarizing the above information and methodology. These tubes are useful in providing an estimate of the amount of liver tissue collected, and will minimize desiccation of the sample.

Contact your local Gribbles Veterinary laboratory or business development manager to order a kit or fax/email us through a request on a consumables order form.

Brent Hananeia

The importance of a blood smear

Many clinics already submit a blood smear with their EDTA samples for haematology testing, but we thought we’d just remind you how crucial this fresh film is to reliable results.

Blood begins to degenerate as soon as it leaves the body, and continues to do so in the sample tube despite a preservative being present. The cells from different species degenerate at different rates, for example, bovine RBCs are rarely well preserved but horse RBCs usually are. Rabbit blood degenerates particularly quickly, so submitted smears are especially important for them.

By the time we receive the bloods in the laboratory the morphology can have changed considerably from when it left the animal. The pictures (left) of the RBCs in a Persian cat show the difference 12 hours can make. The top photo is from a smear made in lab from the EDTA sample received, and the bottom photo is from the fresh film made in-clinic and submitted with the EDTA. The poikilocytosis is still present in the fresh smear (bottom), but it is considerably more marked in the aged sample (top).

If you don’t feel that confident making good blood films, there is a ‘How to’ guide available on our website which may help out. Gribbles Veterinary staff are always happy to have you visit the laboratory for a tutorial if you need some hands on practice or we may even be able to arrange to come to your clinic. Please just contact your local laboratory or your business development manager to arrange a practice session.

Robyn Winters

LAB TIP:

For storing staining solutions in-clinic, use three slide holder containers - one for each stain. Mark the containers with the date they were filled so that you know when to change them. The slides fit perfectly in the slots, so you will never lose a slide in a stain container. Close the lids when not in use to prevent evaporation.
All wrapped up?

A recent incident involving a sample leaking in transit to the laboratory highlights the need for more care to be taken in this area. We know that the whole subject of packaging samples can be a bit boring, but it is nevertheless one of the most critical steps in preparing your sample to send to the laboratory. After all, it often takes a good bit of time, patience and expertise to actually obtain the sample from your client, so it makes good sense to ensure it arrives at the laboratory in tip-top shape.

Picture if you will - the courier picks up samples from a vet clinic, stops elsewhere collecting more packages as he goes, the van arrives at the depot, the driver unloads and discovers blood all through the van and the package from the vet clinic is leaking. Was the packaging for the samples he collected from the clinic appropriate? Can you imagine the host of biological hazards this presents to the van drivers, courier depot staff, not to mention the recipients of all the other packages in the van?

We appreciate that all samples you submit won’t necessarily fit into the approved 0.85L, 2.0L or 3.0L Bio-Bottle shipping containers we can supply to you. So if your sample doesn’t fit, what to do? Since the [Ministry of Transport Dangerous Goods regulations](http://www.doc.govt.nz/transport/dangerous-goods) still need to be complied with, you must make the best effort possible to ensure your package is wrapped appropriately - also see the ‘How To’ guide on our website for more information.

- Place the sample in an appropriately sized sturdy sample container - this could be an empty dry-cow bucket, Tupperware, ice-cream container, paint pail, plastic chilly bin or even a heavy duty plastic bag. Make sure it is taped shut.
- Place this into another bigger sturdy container or well sealed heavy-duty bag (preferably leak-proof) and ensure it contains some absorbent material - enough to soak up any spillage should it occur. Tape this shut.
- Place into at least another layer of packaging for good measure - more than one extra layer may be needed but only you can judge if it is required or not. Label the outside of the package clearly with “UN3373 BIOLOGICAL SUBSTANCE, CATEGORY B”. If you would like some stickers with this labelling please just give your local Gribbles Veterinary laboratory a call and we can provide some to you.
- Now ask yourself, “Would I confidently transport this in my personal vehicle with my children?” - if you are happy with your answer then good job, the sample is ready to go, if not, have another think about how you make the package safer. You are always welcome to give us a call, we might be able to help out with some packaging material.

It is so very important for us to ensure we do not endanger the public at any time when samples are being transported.

Karen Cooper

Feeding the mind

In 2014, Gribbles Veterinary sponsored their pathologists to attend multiple conferences and meetings, both within New Zealand and overseas, generally as attendees and sometimes as speakers.

In February, Michael Hardcastle, Lisa Hulme-Moir, Bernie Vaatstra, Janice Thompson, Fraser Hill, Karen Bailey and Rob Fairley attended the New Zealand Society for Veterinary Pathology conference in Palmerston North. In March, Laura Brandt attended the AVA Rural Practitioners conference in South Australia. In June, Laura Brandt, Lisa Hulme-Moir, Michael Hardcastle and Fraser Hill attended the NZVA Conference in Hamilton. In August, Fraser Hill attended the World Buiatrics Conference in Cairns, Australia. In September, Bernie Vaatstra and Janice Thompson attended the Australian Society for Veterinary Pathology Conference in South Australia. And to cap the year off, Michael Hardcastle attended the November conference of the American College of Veterinary Pathologists in Atlanta, Georgia, USA.

This is an important investment in their knowledge and expertise, since veterinary medicine and pathology are fast-moving areas, and it thereby improves the service we can offer to our clients. It also allows our pathologists to be refreshed and challenged, and the collegial opportunities for networking facilitate our ability to recruit staff and access resources or new tests. This helps to fulfil the mission of Gribbles Veterinary to be the market leaders in innovation and new technology.

Michael Hardcastle
**What's up Doc?**

This photomicrograph is from an abdominal fluid from a dog. Can you name any of the cell types present and help determine *What’s up Doc?* (and isn’t there an uncanny resemblance!?)

Send your answers to Karen Cooper (karen.cooper@gribbles.co.nz) to be in to win a bottle of wine.

If you have an interesting case that you think would make a good *What’s up Doc?* question, send it in to Karen Cooper (karen.cooper@gribbles.co.nz) - if we use it either in Paws, Claws and Udder Things or on our Facebook page, you will also receive a bottle of wine from the team at Gribbles Veterinary.

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**Contact us**

Contacting Gribbles Veterinary couldn’t be easier:

- **Email:**
  - auckland.vetlab@gribbles.co.nz
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- **Phone:** 0800 474 225
- **Website:** www.gribblesvets.co.nz
- **Facebook:** www.facebook.com/GribblesNZ

Last but not least, please feel free to contact your local Business Development Manager:

- **Jimmy Douglas** (North Island) - 027 476 7714
- **Jack Gillman** (South Island) - 027 476 7713

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**Breaking news**

- Weekly facial eczema reports are loaded to our website and Facebook page every Thursday afternoon - all contributing data to be sent by 2pm each Thursday to faciale.monitor@gribbles.co.nz.

- Please ensure you submit at least 1mL of blood for biochemistry testing (red top tube) - once centrifuged this will provide enough serum for most biochemistry panels. If you require more than just a standard panel, a larger volume is however recommended. If you are ever unsure, please just give us a call.

- Just a reminder (especially for new graduates) we provide an interpretation of all our laboratory results **free of charge**. Please just provide a relevant clinical history and tick the VET INTERPRETATION REQUIRED box.

- Not signed up to receive this newsletter? Want to be? Just email karen.cooper@gribbles.co.nz to get it sorted.