

Paws claws and padder things

July 2020



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Welcome

Welcome to a new edition of our newsletter.

This month we have an exciting promotion for companion animal practitioners, seasonal information for product animal vets, some updates from the lab and of course, a great Case of the Month!

Please just call us on 0800 GRIBBLES if you need our help with anything.

Kind regards,
[Karen Cooper](#)
Marketing Administrator

Winter NSAID monitoring

Once long-term non-steroidal anti-inflammatory drug (NSAID) therapy has commenced in a pet, monitoring their health status is very important. This winter, we have a special offer for monitoring renal and liver function in relevant animals.

Changes in health status caused by concurrent diseases may increase the risk of NSAID-related toxicities and progression of a disease causing chronic pain may change the requirement for ongoing analgesia. Most NSAID-related adverse events in dogs occur between 14 and 30 days after starting therapy (Hampshire et al, 2004). Acute renal failure in cats and dogs can manifest two to three days after starting therapy, while deteriorations in hepatic function may only manifest after a few months. Reassessment of NSAID efficacy and any signs of side effects is generally recommended in all pets 7-10 days after starting NSAID therapy.

Older animals are at a higher risk of adverse events. Since side-effects occur more commonly in middle-aged to older animals, every effort should be made to pre-screen these patients before instituting NSAID therapy. Not only does this approach help in early detection of organ disorders, it also establishes a baseline in the event problems should occur as a result of drug administration.

Monitoring organ function when patients are prescribed long term NSAID therapy is integral to the safe and effective use of NSAIDs for chronic pain management. In animals that are at a high risk of NSAID related adverse effects, regular monitoring at 1-2 monthly intervals is recommended. Frequent monitoring is also recommended in animals with a progressive or unstable underlying disease condition.

Monitor your arthritic patient's health status this winter with Gribbles Veterinary's **NSAID panel** (ALP, ALT, urea, creatinine):

Special offer - NSAID panel + free urine specific gravity only \$22.66 (excl. GST)* which is a significant discount off our list price. Simply quote **NSAID2020** on your submission form to participate.

We also have digital collateral available to support your clinic's NSAID testing promotion. Ask us for [social media post graphic](#) and/or a [client flyer](#)[^] and we can send these to you free of charge for clinic use.

*Special offer only available from 1 July to 31 October 2020

[^]The client flyer can be customised for your clinic with your logo, and is supplied in PDF format for you to print or email.



SPECIAL OFFER

Have you axed your fax?

Outdated and unsuited for the modern working environment, fax machines have proven to be ineffective and inefficient compared to digital alternatives. With in-built security flaws and excessive resource wastage, there is almost no place for them any longer in our businesses.

Fax machines were conceived in the 1800s, popularised in the 1970s and supplanted in the late 90s by digital innovations. As we move further into the digital era, it has

become painfully obvious that outdated fax machine hardware is just not up to the task. The technology has many faults and flaws that stop it from supporting modern work environments. From issues with data protection compliance and dangerous security flaws, to simple cost-efficiency concerns and a lack of versatility when it comes to enabling better workflow, there are plenty of reasons the fax machine is becoming obsolete.

In order to ensure the data we send you is secure, we are “axing the fax” and moving to a digital platform only for result transmission. For the majority of you, this will simply mean we remove the fax option (if selected) for laboratory reports and just continue with

emailed PDF and/or txt files.

So, If you’ve already axed your fax, great! If you still receive laboratory results via fax, you will be contacted in the near future by your local laboratory staff to ensure you are able to receive results solely via email instead.

Note: From the end of August, please send any communications e.g. submission forms, consumable order forms, clinical histories etc. to us via email and NOT via fax, as we will also be unable to receive incoming faxes. Individual laboratory email addresses can be found in our price book or on our website.

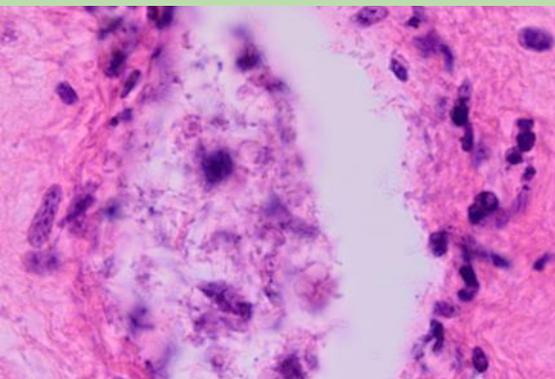
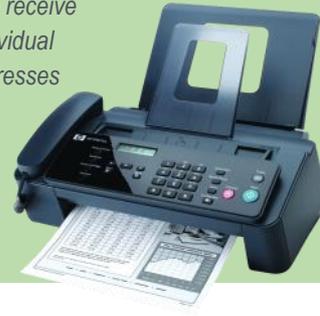
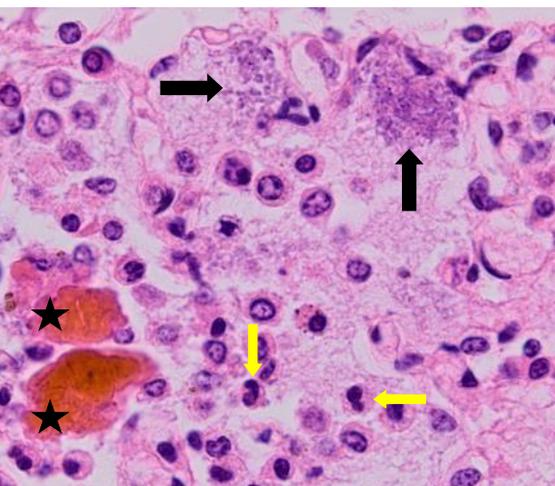


Figure 2 (above): Short bacterial bacilli are present within the lumen of a blood vessel in the placenta with degenerate neutrophils migrating through the vessel wall.

Figure 3 (below): Many bacterial bacilli (black arrows) are present within the alveoli of the lung of the aborted foetus. Neutrophils (yellow arrows) are also noted indicating pneumonia secondary to aspiration of the bacteria in the amniotic fluid. The large clumps of bright red-brown material (star) is meconium.



Salmonella abortions in cattle

LISA HULME-MOIR

This month has seen two cases from the Northland and Taranaki districts involving late-term abortions due to *Salmonella Bovismorbificans*.

In both instances, mixed-age dairy cattle were involved and in one case, eight of the nine cattle aborting did not show any observable clinical signs other than having dead near full-term calves. The aborted calves in this case appeared fresh with minimal gross changes other than non-specific haemorrhages through the skeletal muscle *Salmonand* organs and in one calf emphysematous areas through the liver (see Figures 1a and 1b). On histopathology, there were typical changes of necrosuppurative placentitis and acute bacteraemia and pneumonia of the fetus (Figures 2 and 3). A

Figures 1a and b (below): Near full-term calf aborted due to *Salmonella Bovismorbificans*. Non-specific haemorrhages were noted grossly with emphysematous areas over the liver indicative of autolysis. Many thanks to Nena Nepia for both of these images.

heavy growth of *Salmonella Bovismorbificans* was cultured from the foetal stomach contents.

The second case presented with four cows dehydrated and scouring, two of which subsequently aborted. A heavy growth of *Salmonella Bovismorbificans* was obtained from the faeces of two of the cows.

The first case described above is a little unusual in the lack of clinical signs in the aborting cows. Most commonly *Salmonella* abortions are accompanied by signs of systemic illness, scouring and dehydration in the dam with abortion occurring either due to infection of the placenta and fetus after septicaemia; or prolonged pyrexia or endotoxaemia causing luteolysis without direct infection of the fetoplacental unit. It however has been noted that heifers aborting due to *Salmonella* Brandenburg in the South Island may or may not appear unwell.

Although historically *Salmonella* abortions have only been seen very sporadically in the North Island, it is worth considering this as a differential for abortions between 5-months to full-term and for stillbirths, given the zoonotic potential for vets and farm workers. In the South Island, we continue to see late-term abortions due to *Salmonella* Brandenburg. In 2019, 21 cases were diagnosed through our South Island laboratories between May and September, the majority of which were in first and occasionally second calvers.



Calf scour testing

With the calving season kicking off in many areas of the country, calf scours are soon to be on our doorstep. Gribbles Veterinary has a range of testing options including calf scour panels tailored to the age of the animals.

Our expert team of pathologists are always happy to assist with selecting the most appropriate tests and discuss challenging cases. An excellent review of calf scour

diagnostics written by Bernie Vaatstra can be [accessed here](#). The following tables summarise the results from calf scour panels over the past 12 months.

Table 1: <1-week panel results

	AU	HA	PN	CH	DU	Overall
Rota	25%	54%	19%	51%	33%	36%
Crypto	20%	38%	75%	23%	17%	35%
K99	5%	8%	13%	0%	0%	5%
Salm	10%	0%	25%	40%	0%	15%
Multi	0%	0%	31%	12%	0%	9%
Neg	40%	0%	31%	9%	50%	26%

Table 2: 1-4 week panel results

	AU	HA	PN	CH	DU	Overall
Rota	33%	40%	29%	51%	20%	35%
Crypto	28%	52%	41%	14%	10%	29%
Salm	20%	13%	14%	10%	40%	20%
Corona	0%	0%	5%	1%	0%	1%
Multi	20%	21%	11%	7%	10%	14%
Neg	40%	13%	25%	31%	70%	36%

Legend: Rota = rotavirus; Crypto = cryptosporidium; K99 = Escherichia coli K99; Corona = coronavirus; Salm = Salmonella species; Multi = multiple positive results; Neg = no pathogen identified.

AU = Auckland; HA = Hamilton; PN = Palmerston North; CH = Christchurch; DU = Dunedin

Is it actually urgent?

All turn-around-times (TATs) for the tests we offer are provided in our price book. These TATs give you an indication of how long it will take to receive results back once we have received the samples in the laboratory.

All of our staff pride themselves on providing excellent service levels, and are constantly looking to better the stated TATs where possible. More often than not we are able to send out results same day for all tests that

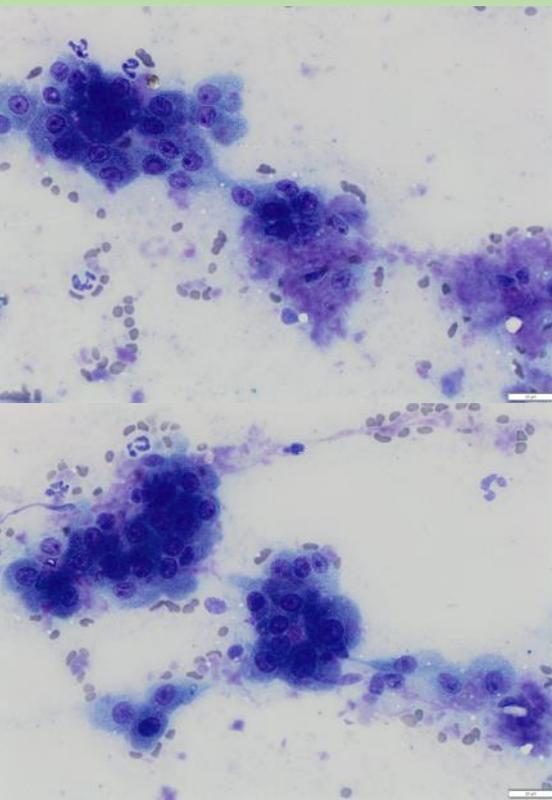
have a 1-day TAT, and if the results aren't sent out same day, then they will be sent out within 24hrs of receipt. Even for samples arriving late in the day, we do our best to get the results to you before we close the lab for the evening.

"So when should we mark a sample as URGENT?" is something we are often asked. We recommend that if you require the results urgently due to a complicated or critical clinical presentation, then please clearly mark them URGENT on the submission form, and we will prioritise them on receipt. Some testing unfortunately cannot be hurried up, for example microbiology cultures or histology processing, but if we know you need the

results ASAP, we can send preliminary results and prioritise them for reading once they have been incubated and/or processed.

If your testing is not clinically urgent, but you would nevertheless like your results as soon as possible, rest assured our aim on a daily basis is to provide them to you as soon as we can.

So please consider others before marking a case urgent if it really isn't —because if routine cases are marked urgent, it makes it difficult for us to help look after the well-being of those animals that need it the most.



Case of the month

AMY WEEDEN

Clinical history:

An adult, castrated male, Oriental breed cat presented with severe diarrhoea and cachexia. Abdominal ultrasound revealed several abnormalities to include mild diffuse small intestinal changes, moderate hepatopathy/hepatomegaly, bilateral chronic renal degeneration, and trace peritoneal effusion.

Photographs left: Clusters of mildly atypical hepatocytes are surrounded by globular pink proteinaceous material and non-degenerate or partially disrupted neutrophils. The sample is mildly blood contaminated and well preserved.

Laboratory results:

Serum biochemistry identified azotaemia and hyperbilirubinaemia with a moderate non-regenerative anaemia and an inflammatory leukogram on the CBC. The cat was also likely FIV positive.

Hepatic aspirate and peritoneal effusion cytology were performed. The effusion was most consistent with a high-protein, modified transudate.

CONTINUED OVERLEAF

Thank you to Tommy Fluen and Veterinary Specialist Group in Auckland for this interesting case.

Snippets

- **ePrice books**—if you missed out on getting a copy of our PDF via email, you can [download a copy from our website](#) at any time. You just need to log in first. Help save the planet and the environment and choose electronic rather than a hard copy!
- **BVD bulk milk portal**—this new portal allows for online ordering of bulk milk BVD, ostertagia and liver fluke testing – all performed on dairy company sourced samples. You can also see all of your clinic's orders booked, which farmers are about to be tested and if your samples have arrived in the lab. It's the new smarter way to order bulk milk testing! [Find out how here](#).
- **Can we have a blood smears with that?**—thank you to all clinics that provide blood smears together with their EDTA samples for CBC testing. A blood smear made at the time of sample collection ensures we can see if possible leukocyte deterioration in the EDTA is masking inflammatory changes. So please make a smear and send them in with your EDTAs.



Gribbles
VETERINARY

Case of the month

CONTINUED FROM PAGE 2

Diagnosis: Hepatic amyloidosis with moderate neutrophilic inflammation and likely hepatocellular hyperplasia.

Discussion: The most notable cytologic finding in this case is the pink proteinaceous material surrounding the hepatocytes. This is an infrequent cytologic finding, which is highly suggestive of amyloid. For confirmation of amyloid, a Congo-red stain was performed. The proteinaceous material stained red-orange with birefringence observed on polarized light. This confirmed that the material was amyloid. Renal samples were not submitted, but the presence of renal azotaemia with significant proteinuria suggests that renal amyloidosis was also present.

Amyloidosis is not a specific disease. Rather it refers to a group of protein misfolding disorders characterized by deposition of amyloid protein in various organs and tissues. AA-amyloidosis is the most common form of amyloidosis in domestic animals.¹ Amyloid protein AA is an amino-terminal fragment of the acute phase protein serum amyloid A or SAA.² SAA is produced in response to tissue injury associated with chronic inflammatory or neoplastic diseases, or amyloid deposition can be idiopathic.^{1,2} Clinical presentations will vary, based on the organs affected and the severity of the amyloid deposition. Reactive systemic amyloidosis secondary to chronic inflammatory conditions may affect liver, kidneys, spleen, lymph nodes, and adrenal glands. The kidney is the main target organ for the deposition of amyloid in familial amyloidosis in Abyssinian cats and Shar-Pei dogs, and the liver tends to be the target organ in Siamese cats.¹

Hepatic amyloidosis is uncommonly reported in cats, and the majority of cases are either Siamese or Oriental breeds. Prognosis is usually poor with most of the reported cats either being euthanized or dying acutely; hepatic rupture with haemoabdomen is reported in cats affected with this condition.³ According to one study, cats with FIV are more likely than the general cat population to have amyloid deposits in their tissues,⁴ and that may have been a predisposing condition in this case, in addition to breed predilection.

References:

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4. Asproni P, Abramo F, Millanta F, Lorenzi D, Poli A. Amyloidosis in association with spontaneous feline immunodeficiency virus infection. *J Feline Med Surg.* 15:300-306, 2013.

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