NWL™ Newsletter
NationWide Laboratories
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## Looking for Johne's?

At NWL Leeds we recently received faeces samples from two Friesian cows with a history of chronic scour and weight loss. Both samples showed large numbers of clumps of acid fast bacilli on Ziehl-Nielsen (ZN) staining, raising suspicions of Johne's disease. Our client practice rang for advice on the options for further testing as no disease surveillance programme was in place on the farm.

Infection is acquired during early life, but clinical disease does not occur until adulthood, with sero-conversion occurring variably late in the pathological process, so identification of **infected** but not **affected** animals is difficult.

- **Establishing the Johne's disease status of the overall herd is an important step to assist in interpreting results from individual animals.**
- **Blood testing all animals >2 years old is the best (but most costly) way to assess how widespread infection is in the herd.**
- **Blood (or milk) testing 30 cows > 3 years old on a one off basis is an alternative method of establishing the herd Johne's disease status.**

Ideally, blood samples should not be collected within 6 months of a TB test to minimise the risk of false positive results.

A bulk milk test is available for dairy herds, but is not yet considered accurate enough to use in eradication programmes.

- **Combining quarterly bulk milk tests with blood testing all cull cows can provide cost effective, ongoing surveillance where whole dairy herd testing is not an economic option.**

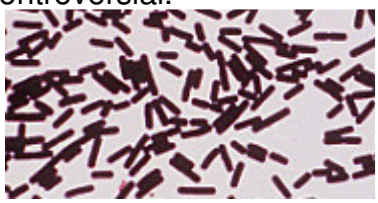
Infected cattle are often more susceptible to other infections, lameness etc and become "poor doers" before finally succumbing to the disease, so testing cull cows can be particularly helpful. Examining ZN stained faecal smears is not a very sensitive technique, useful only in clinical cases. Animals shedding infection can be more reliably identified by faecal PCR testing. Faecal culture is also available, but this is a time consuming and relatively expensive technique. Environmental faecal testing protocols are also available to screen for the disease.

Identification of infected cow "families" in a herd enables rational culling and helps to reduce the number of infected cattle in the herd, but culling alone without improving hygiene around calving and ensuring calves are reared away from potentially infected older cattle, **will not** reduce the incidence of disease. Vaccination may also be a practical option.

**A coherent, workable herd health plan is vital to gain control of Johne's disease.**

## Clostridial enteritis in dogs and cats

Speculation about the role of clostridial species in enteritis has increased in recent years. In some species *Cl. perfringens* is recognised as a cause of enterotoxaemia. However, *Cl. perfringens* is a normal and plentiful inhabitant of the gut of carnivores. The isolation of *Cl. perfringens* from the faeces or gut contents of a cat or a dog is therefore to be expected. Demonstration of potentially pathogenic significant *Cl. perfringens* depends on toxin detection. Enterotoxin-producing *Cl. perfringens* has been associated with both acute and chronic diarrhoea, however enterotoxin has also been detected in faeces of healthy animals and so its causal role is controversial.



***Clostridium perfringens*—Gram stain**

In cases of enteritis where there is good evidence of clostridial involvement then treatment with ampicillin, erythromycin or metronidazole is likely to be effective within a few days. The clinical significance of *Cl. difficile* in cats and dogs is not firmly established.

**The next NWL Clin Path meeting is at 8.00 pm at the Holiday Inn Leeds Bradford, Tong, on 27 Nov 08. Sarah Ambler will speak on atopy.**


GATE WAY DRIVE, YEADON, LEEDS LS19 7XY
Tel: 0113 250 7556 Fax: 0113 250 0198 Web: www.lvlabs.co.uk