Abamectin Toxicity in Calves

Abamectin is used commonly in parasite control in NZ, either alone (e.g. Genesis pour-on) or in combinations (e.g. Eclipse pour-on, Matrix C oral),

Cases of abamectin toxicity have been reported in calves with signs including wobbly gait, apparent blindness, recumbency, coma and death.

Recommendations for safe use of abamectin containing drenches in calves:

1. Never oral drench calves at the calfeteria or mix drench with milk.
   Oral drenches need to be slowly absorbed from the rumen. Stimulation of the oesophageal groove reflex during suckling can result in the drench completely bypassing the rumen resulting in rapid absorption from the abomasum.

2. Don’t drench calves under 120 kg or 4 months of age with abamectin based drenches.
   Determine if calves under 120kg/4 months actually need drenching at all. There is evidence that suggests that both establishment of worms and the effect they have on the animal are much less in animals on a milk diet. Pre-weaned calves should be kept on clean pasture to help ensure low worm burdens.

3. Don’t swap drench containers
   If you need to put drench into a smaller container to administer it, always label the container what it contains or transfer any unused drench back into its original container straight away.

4. Always check that the drench gun is measuring accurately and you are using the correct dose.
   Weigh enough animals to get an accurate idea of their weight (often the weight of young animals is overestimated). Splitting animals into separate mobs based on weight can help reduce dosing variation.

Sudden Death Syndrome in Calves

Typically, the 5 in 1 clostridial vaccinations provide adequate cover for the standard clostridial infections.

However, sudden unexplained deaths can still occur in vaccinated animals and have been linked to another clostridial pathogen, Clostridium sordelli, the antigens for which are not contained in the traditional 5 in 1 vaccines.

Any age animal can be affected but usually cases occur in calves up to R2s. Fast growing animals on good pasture are particularly at risk.

Cl. sordelli generates a potent toxin that produces gas gangrene causing gut ruptures, enterotoxaemia, a putrid smell and rapid decomposition of tissues.

For farms which have observed sudden unexplained death in 5 in 1 vaccinated herds, where other clostridial involvement is suspected, vaccine options with wider cover include Ultravac SD 6 in 1 (which includes protection against Cl. Sordelli as well as the usual protection provided by the 5 in 1) or Covexin 10, which protects against 10 types of clostridia.

Please contact us at the clinic to further discuss vaccination options for your stock.
Brief News

Facial eczema
Spore counting has begun so keep an eye out for your local counts in the Northland Age. So far counts have been low.

Dry Cow Forms
In preparation for our annual prescription animal remedy (and dry cow) consults we will be sending out the drying off management survey forms in the mail. Please take the time to fill these in and send them back. They help us develop mastitis management and dry cow therapy recommendations specific to your farm.

We will be aiming to conduct our annual PAR/dry cow consults late March. Please ensure you have sent your forms in before then. It is a legal requirement that we run these consults every year, in order to be able to provide you with Prescription Animal Remedies.

Merial Ancare Promotion

Here’s one for the sheep farmers out there.
Purchase qualifying products and receive either a Powerbuilt Multitool Set or a Powerbuilt 3 in 1 torch.

While stocks last.

Welcome to summer! It seemed to be a long time coming with the wet weather around Christmas time but on the upside there is plenty of grass around.

Recently we’ve seen a few cases of sudden deaths in cattle, read on for more on this.

Lately we’ve also heard of reported cases of abamectin toxicity in calves so we’ve included some guidelines to help you drench safely.

With lepto vaccinations just around the corner we have an article to remind us all about the importance of vaccination with regards to human health.

Inside

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- Leptospirosis
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Sudden Deaths
Beef Cows

Sudden death in beef cows is not uncommon in the spring time and can be caused by a variety of metabolic and infectious (mastitis, metritis) diseases and bloat. At other times of year it is less common but we have seen conditions such as clostridial diseases (blackleg, tetanus etc.), nitrate poisoning, bowel catastrophies, heart and lung conditions, lightening strike, plant and chemical poisonings. A fresh post mortem should be carried out as soon as possible, especially if more than one animal is involved.

Around Christmas time we had a few cases of sudden deaths in beef cows. With the weather conditions and availability of lush feed at this time, these deaths were thought to be a result of Caudal Vena Cava Syndrome. This syndrome is reasonably common in dairy and beef cows—particularly in animals that are being feed crops or other supplementary feeds.

In this condition, a series of events occur that can lead to sudden death. The initiating event is a subacute ruminal acidosis which occurs when a large amount of soluble carbohydrate is fermented in the rumen causing the rumen pH to become more acidic. This may occur with sudden change to richer pasture or supplementary feed.

The increased acidity damages the sensitive lining of the rumen. This can cause diarrhoea, toxaemia and death but other times can be subclinical, that is we might not see obvious outward signs.

Bacteria from the damaged rumen can leak out into the blood vessels that supply the liver. The result is abscessation in the liver and often peritonitis. Bacteria may also colonise the lung, heart, kidneys and joints via the blood stream.

Infection in the lung tissue invades the blood vessels in the lungs and can cause them to rupture leading to haemmorhage.

Summary of Events in Caudal Vena Cava Syndrome

1. Large amount soluble carbohydrate ferments in rumen
2. Rumen pH drops below 5.5 – acidic conditions
3. Damage to rumen lining
4. Bacteria in damaged rumen wall leak through into blood vessels that supply the liver
5. Liver abscesses/peritonitis
6. Bacteria can spread to lungs, heart, kidneys and joints
Leptospirosis

With our annual cattle lepto vaccinations just around the corner it’s a good time to remind ourselves why we vaccinate. Not only are we protecting the health of our stock but our own and our families health as well.

Humans are susceptible to infection by leptospirosis, in fact it is one of the most common zoonoses worldwide. Infection to humans occurs following contact with tissues or body fluids of infected animals via the mouth, eyes, nose or via broken skin. Contact may occur directly e.g. via urine splashes in the milking shed or during assisted calvings or indirectly via contaminated soil or water. The disease in humans varies from being sub-clinical to severe and can result in death due to kidney or liver failure. Flu-like symptoms occur during the first phase of the disease e.g. fever, muscle aches, chills, headaches etc. The second phase of the disease includes meningitis, liver and kidney failure.

Vaccination of stock is a big part of reducing the risk. Vaccinations prevents animals from becoming infected but is not a “cure” for infected animals. All classes of stock need to be vaccinated.

When vaccination is used in combination with other preventative measures, the risk of catching lepto is greatly decreased. Other important preventative measures include:

Hygiene
- Wear protective clothing (gloves, apron/overalls/appropriate footwear) during milking, when assisting calvings and when handling afterbirth or aborted foetuses.
- Avoid smoking, eating, drinking and rubbing eyes/nose/mouth when handling stock, e.g. in the milking shed.
- Avoid urine splashes
- Use plasters to cover cuts
- Wash hands well

Rodents
- Control rodents
- Keep feed storage tidy

Personnel Awareness
- Ensure staff, family members and visitors know how to reduce the risk of infection

Pigs
- Where possible, avoid keeping unvaccinated pigs
- Vaccinate pigs 6 monthly

Effluent Management
- Leptospires can live in wet conditions for up to 6 months
- Spray effluent in dry conditions, graze sprayed pasture when dried
- Reduce stagnant water build-up
- Fence off ponds and other waterways.

Lepto Vaccinations 2012

Soon we will be organising this year’s lepto vaccinations. We are planning on grouping visits in certain areas together. Josh will be doing a ring around to organise visits.

For the beef farmers out there, if you haven’t vaccinated in the past but would like to start vaccinating your herd please contact us at the clinic.