

Edited by:
Dennis Scott BVSc
MACVSc

EA Veterinary Marketing Ltd
54 Hobill Ave Wiri
PO Box 97-110 Manukau City
Manukau 2241

Ph 09-262-1388 Fax 09-262-1411
Freephone 0800 800-624
email info@ethicalagents.co.nz
website www.eavm.nz

A Perfect Storm

Inside this issue:

| | |
|------------------------|---|
| Transporting Stock | 2 |
| It's not Just For Cows | 3 |
| Rat Poison in Sheep | 4 |
| Suture Maintenance | 6 |
| Listening to Clients | 5 |

Late last year an almost perfect storm resulted in a shortage of local anaesthetic right at the crux of the velvetting season.

The reasons were various and no longer important but they have since been totally sorted.

In a tremendous example

of industry cooperation the regulatory body (MPI), the distributor (EA) and the manufacturer worked overtime.

Stress levels were high and crucial risks (e.g. being left with a huge load of unsaleable perishable stock) were taken in order to ensure that

clients' needs were catered for.

The upshot of all this was not only was the crisis narrowly averted, all the attendant issues were also put to bed so that such a situation cannot arise again.

What the panic did show was that, now supply lines have been set up in Australia, there is a very quick reaction time compared to having stock sent from the other side of the world.

This means that there is no farther risk of lack of supply at crucial times.



Expanding Already

In the latter half of 2018 Ethical Agents Veterinary Marketing opened a warehouse in Dunedin to support clients in the

southern parts of the country.

It has rapidly proven to be a success and this success has necessitated a move to larger premises already.

By taking over the larger building on May 9 EA will be able to give even greater service to Deep South Clients



Transporting Stock

Recent literature from Dairy NZ has recommendations for transport of lactating cows.

This is because these cows are in danger of a hypocalcaemic event from the stress of transport and are liable to go down on the transporters or upon arrival, leading to a total loss for the farmer.

The recommendations are simple common sense and are outlined below:

- 1) Choose a processor nearby, shorter transporter distance are better and easier for cows.
- 2) Make sure she's fit for transport. The advice to the client is that, if they are unsure, to seek advice from their vet.
- 3) Stand cows off green feed for at least 4 hours. This would reduce the risk of effluent spills from trucks.
- 4) Give extra calcium, this is a big one as far as veterinary advice is concerned. Lactating cows can get low blood calcium during transport because they are still putting calcium in milk and not having it replaced from their usual food sources. Lack of calcium leads to wobbly cows going down in the trucks.
- 5) Provide roughage and water. Make sure cows have enough water and dry feed while they are stood off.

This is a great opportunity for veterinary clinics to show they are ahead of the game and advising clients.

It is also an opportunity for business when considering recommendation #4.

While Dairy NZ recommend a calcium based slurry be given orally it is far more logical to drench with the tried and proven Calol, which is ideal for the purpose. One bottle of Calol would see all problems disappear.

It would be extremely cheap insurance to dose every lactating transported cow with Calol, and they can only purchase that from the

veterinary practice. A win/win situation for all concerned.

To this end EA has designed an in clinic A4 size poster that can serve as an unobtrusive guide to clinic clients.

It can be provided laminated and also, if so wished, with the clinic's own logo instead of the generic veterinary logo depicted.

TRANSPORTING STOCK


1. Choose a processor nearby



2. Make sure she's fit for transport



3. Stand cows off of green feed for at least 4 hours




4. Give extra calcium through Calol




5. Provide roughage and water



6. Wash the truck down with SteriGENE





If your sending cows off the farm, use these steps to ensure that they have a safe journey and arrive fit and healthy.

Contact us:
 EM: info@ethicalagents.co.nz
 WB: www.eavm.nz



"Ensuring care comes easily"



It's Not Just for Cows

A couple of recent instances have highlighted the fact that CalciTat, well known in the dairy world as a high concentrated "go to" injection for metabolic diseases is not just a dairy cow remedy.

First of all there was a highly informative article by Paul Fraser in the Equine Branch newsletter reporting on its use in mares with low calcium problems.

He has had several cases over the years and finds CalciTat ideally fit for purpose.

"The short answer was absolutely! This is not even 'off label' use"

More recently a call came in from the field with a clinician having a bitch with eclampsia. They asked whether CalciTat was okay to be used and whether we knew of any experience with it,

The short answer was absolutely! This is not even 'off label' use as CalciTat, is actually registered with ACVM for use in both those species as well as cattle, sheep, pigs and goats.



Dose rates are on the label but, at a canine dose of 3-5 ml it is not only extremely effective but also very economical.

CalciTat has been around for a long time and was formerly known as CalciTad until overseas copyrights saw a small change in the name.

As the vast majority of sales are in the dairy cattle world the label does have an image of a cow rising to its feet. Maybe the marketing image is too powerful giving the impression it is a cattle drug.

However CalciTat is used world wide for eclampsia both in mares and bitches, as well as in a number of other species.

Trial work has shown it not only effective but extremely safe in cases of clinical hypocalcaemia and it can be used intravenously as well as subcutaneously.

An added feature is that the phosphorus component, phosphorylethanolamine, is readily utilized by the body, unlike the sodium hypophosphite of standard calcium infusions.

Registered indications, i.e. on label use, are treatment of hypocalcaemia in ruminants, eclampsia in sows and bitches, and rickets, osteomalacia, neurosis and uterine inertia in many species.

CalciTat is therefore not just for cows - every small animal clinic should have a bottle, especially in puppy season.

Fred's Close Shave

Fred sat in the barber's chair, "I'll have a shave and a shoe shine..."

The barber began to lather his face, while the most beautiful woman that he had ever seen knelt down and began to shine his shoes.

Fred said, "Young lady, you and I should go and spend some time in a hotel room."

She replied, "I'm married and my husband wouldn't like that."

Fred said, "Tell him you're working overtime and I'll pay you the difference."

She said, "You tell him; you're closer."



Rat Poison in Sheep

An interesting call recently was about sheep consuming rat poison, not your everyday occurrence. Although we have a wealth of data on toxicity in dogs there is very little local data available in ruminants. Does the toxin get through the rumen? Always assume yes just in case, and actually the answer is yes. Does the rumen destroy vitamin K? What would be the vitamin K requirement? And a myriad of other questions from a practical point of view.

The bottom line is that the rumen not only does not reduce vitamin K intake but is a major source of the nutrient in ruminants. There is some very interesting information available the gist of which is reproduced here; it is US data so comes with the American spelling.



Vitamin K requirements of ruminants are met by a combination of dietary intake and microbial biosynthesis in the rumen and intestines that may involve intestinal microorganisms such as *Escherichia coli*.

Ruminal microorganisms in particular synthesize large amounts of vitamin K, which explains why ruminants do not appear to need a dietary source of the vitamin except during coumarin toxicity. The ruminant can absorb considerable

amounts of ruminally synthesized vitamin K in the small intestine via active transport.

Due to rumen and intestinal microbial synthesis, quantifying a precise vitamin K requirement for ruminants is difficult. Rapid rate of passage (e.g., diarrhea) through the digestive tract may also influence vitamin K synthesis in cattle.

The daily requirement of most species falls in a range of 2 to 200 µg vitamin K per kg (0.91 to 91 µg per lb) body weight. It should be remembered that this requirement can be altered by age, sex, stress, anti-vitamin K factors such as coumarin or T-2 toxin, disease conditions and any condition which impairs lipid absorption, alters intestinal flora or interferes with liver function.

The two primary natural sources of vitamin K are phyloquinone (vitamin K₁) from plants and menaquinones (vitamin K₂) produced by bacterial flora. Vitamin K derived from bacteria would be considered the most important source for ruminants because large quantities of vitamin K are normally available from rumen synthesis.

Vitamin K is present in fish and, dark-green vegetation, especially leaves. It is abundant in pasture and green roughages, thus providing high quantities of vitamin K to grazing livestock. Feedlot animals would, however, receive little vitamin K from finishing diets which are based on grains and oilseed meals.

Sunlight is important for vitamin K formation. Non-chlorophyll-producing plant components contain little vitamin K, but the natural loss of chlorophyll from leaves in the fall does not cause a loss of vitamin K activity. Alfalfa meal is a good plant source of vitamin K,

while liver and fish meal are good animal sources.

"ruminants do not appear to need a dietary source of the vitamin except during coumarin toxicity"

All animal by-products, including fish meal and fish liver oils, are much higher in vitamin K after they have undergone extensive bacterial putrefaction.

Microorganisms in the rumen synthesize large amounts of vitamin K, and a deficiency is seen only in the presence of a metabolic antagonist, such as dicumarol from moldy sweet clover (*Melilotus officinalis*; *M. alba*).

Dicumarol is a fungal metabolite produced from substrates in sweet clover hay, which is common in the Northern Plains of the United States and in Canada.

The coumarins in fresh sweet clover are not active because they are bound to glycosides. They are activated when sweet clover is improperly cured. This condition, referred to as "sweet clover poisoning" or "hemorrhagic sweet clover disease," has been responsible for a large number of animal deaths.

Affected animals can die from hemorrhage following a minor injury, or even from apparently spontaneous bleeding.

Dicumarol passes through the placenta in pregnant animals, and newborn animals may become affected immediately after birth. All species of animals studied have been shown to be susceptible, but cases of poisoning have involved mainly cattle and, to a very limited extent, sheep.

(Continued on page 5)

Rat Poison in Sheep

(Continued from page 4)

Dicumarol poisoning can be reversed by administration of vitamin K. Parenteral vitamin K1 was an effective treatment for calves at rates of 1.1, 2.2 and 3.3 mg per kg (.5, 1 and 1.5 mg per lb) body weight.

Other researchers have reported that vitamin K1 injections were effective in treating sweet clover poisoning in cattle, but that vitamin K3 (menadione) injections were not (Casper et al., 1989). Pritchard et al. (1983) reported that large oral doses of vitamin K1 were effective in treatment of sweet vernal poisoning of cattle, but that vitamin K3 gave less consistent results in terms of prothrombin time.

This may reflect a greater antagonism of dicumoral against menadione.

Another common cause of induced vitamin K deficiency in veterinary practice is the accidental poisoning of animals with warfarin (a syn-

thetic coumarin used as a rodent poison).

Initial clinical signs may be stiffness and lameness caused by bleeding into the muscles and joints. Hematomas, epistaxis or gastrointestinal bleeding may be observed.

Death may occur suddenly with little preliminary evidence of disease and is caused by spontaneous massive hemorrhage or bleeding after injury, surgery or parturition.

In experimentally induced dicumarol poisoning, "hemorrhagic sweet clover disease," Alstad et al. (1985) reported that normal prothrombin time is equal to or less than 20 seconds.

Deficiency of vitamin K was characterized by prothrombin times of greater than 40 to 60 seconds, and with severe deficiency, prothrombin time can be as long as 5 to 6 minutes.

Choline chloride is particularly destructive to vitamin K, with an

average monthly loss of 34% to 38% for MSBC and MPB when stored in a vitamin premix with choline.

Therefore, greater quantities of vitamin K are recommended in premixes that contain large quantities of choline chloride and certain trace minerals, especially when premixes are exported or stored for an extended period of time.

For further reading the full article can be accessed at https://www.dsm.com/markets/anh/en_US/Compendium/ruminants/vitamin_K.html

So the bottom line is that ruminants very rarely get vitamin K deficiency and are probably less susceptible to warfarin toxicity than dogs but are certainly not immune to it.

Treatment would thus be empirical.

Letter to My Boss The Voter

I have enjoyed working here these past several years.

You have paid me very well and given me benefits beyond belief.

I have 3-4 months off per year and a pension plan that will pay my salary till the day I die and then pay my estate one year salary death bonus and then continue to pay my spouse my salary with increases until she or he dies along with a health plan that most people can only dream of having.

Despite this, I plan to take the next 12-18 months to find a new position.

During this time I will show up for work when it is convenient for me.

In addition, I fully expect to draw my full salary and all the other perks associated with my current job.

Oh yes, if my search for this new job proves fruitless, I will be coming back with no loss in pay or status. Before you say anything, remember that you have no choice in this matter. I can, and I will do this.

Sincerely,

Every Member of Parliament running for re-election



Suture Maintenance

The old saying rust never sleeps applies not only to maintenance of metal surfaces but also refers to the fact that many many things will deteriorate over time. That is why roofs have to be repainted, roads resurfaced, clothing replaced, etc.

Everything has an expiry date or a best before date. It is no different with medical equipment, especially suture material. The issue is emphasized by the use of cassettes instead of sealed sachets.

All workmen need to be jealous in protection of their tools but sutures often rank as among the most mistreated tools of veterinary clinicians.

Because the suture material is one of the lowest cost items and also one of the most integral items in any operation, human medical surgeons and leading veterinary hospitals refuse to use cassettes but rely on single use sachets.

Cassettes have a strong foothold in general veterinary practice, solely for price reasons. This can prove to be a false economy unless safeguards are taken. Synthetic sutures have the benefit of dissolving in the body by hydrolysis rather than the inflammatory process ascribed to catgut. The downside of this of course is that all synthetic

sutures are susceptible to atmospheric moisture so that once they are exposed to air, such as by the opening of a cassette, they will begin to deteriorate.

Thus all synthetic dissolvable sutures, whatever the brand, will have a broach shelf life just as some injectable pharmaceuticals

"This can prove to be a false economy unless safeguards are taken."

have a broach shelf life. For example the shelf life of polyglycolic acid cassettes, once the cassette has been opened, is six months. A shelf life is the manufacturer's guarantee period, taking responsibility for product integrity if any untoward event happens. After that time there is no certainty that the product, whether it be a pharmaceutical drug or a medical device such as a suture, is still fit for purpose.

Manufacturers also go to great lengths to keep consumers aware with label statements such as "best before..." or "keep refrigerated" or maybe "protect from light".

In the case of Serag-Weissner, the world's oldest suture manufacturer, there is even a panel on the cas-

settes with the instruction to write down the date of first use so that the user is aware how long it has been opened and how close it is to the six month broach expiry.

Best practice would require following these simple steps, especially as all polyglycolic acid sutures are as hydroscopic as each other, no matter the brand.

Craftsmen are very protective of their tools and professionals would be expected to be even more so. Certainly the panel on the Serag Weissner cassette makes this a simple procedure.

Other Tips

It is correct and recommended to sterilize the chimney before using the suture. Normally it's done either via spray or carefully via cotton swabs. Putting larger quantities of alcohol into the chimney, even worse leaking into the cassette housing, could speed up the suture absorption.



Keeping the cassette tray covered between operations with Ethical Agents special new plastic hood, along with a light spray of the very potent aerosol disinfectant AirStel, (or a fine mist of SteriGENE disinfectant) serves to maintain surgical hygiene without the risk of suture damage from alcohol, and the antibacterial efficacy is much greater.

3 Rules for Maintenance

- 1) Write the date down
- 2) Don't fill the chimney with alcohol.
- 3) Use the EA supplied plastic hood



Listening to Clients

One thing the team at Ethical Agents has always been good at is listening to the market and trying to supply practitioners needs. Hence the tagline of "the source of veterinary ethicals."

Great examples are Keadione when vitamin K supplements became unavailable and the maintenance of Acezine when other ACP preparations disappeared due to corporate decisions.

In fact the word ear could well be an acronym for EA responds. Nowhere has this been more evident than in the field of sutures.

C suture was launched to the New Zealand large animal market in 2010 and feedback from Kiwi practitioners was that it would be ideal as sachets for dog caesarians. Serag Wiessner listened to this feedback from EA and produced sachets especially for our market in 2011.

Now they have responded again. Following feedback and requests

from clients Ethical Agents has responded and added in five new products into the Serag Weisner suture range for NZ

There has for some time been a general market trend to move away from cassettes and into sachets with swaged on needles.

Clearly the advice from specialist surgeons that the suture is the cheapest part of the operation, so do not stint on that, has been heeded. Sachets give more convenience and also are seen as a more sterile option.

There was a market space particularly in dairy practice for Supramid in sachets for skin suturing.

EA has now filled this demand with five new products.

There are 3/0 and 2/0 Supramid sachets, both with a DS18 cutting needle for small animal work.

In addition there three specialist dairy products each with a DS cutting needle to suit the primary us-



age and each with the sachets containing the ideal length of thread.

1 USP 75cm with a DS35 needle, 2 USP 150cm with a DS45 needle and 3+4 USP 90cm with a DS100 needle. This one clients are really loving and stock has totally sold through twice already!

One unforeseen side benefit that older practitioners are really appreciating is that the swaged on needles obviate the need for fiddly needle threading when out in the field - without the sharpness a young person's eyesight!

The New Job

After being laid off in five different jobs in four months Arnold was hired by a warehouse.

However one day he lost control of the fork truck and drove it off the loading dock.

Surveying the damage the owner shook his head and said he would have to withhold 10 percent of Arnold's wages each month to pay for the repairs.

"How long will that take?" asked the anxious Arnold.

"About four years," said the boss.

"What a relief," exclaimed Arnold, "I've finally got job security!"



Proud Mums

Three women were boasting about their sons. "What a birthday I had last year," exclaimed the first. "My son, that wonderful boy, threw me a big party in a fancy restaurant. He even paid for my friends."

"That's very nice but listen to this," said the second. "Last winter my son gave me an all-expenses paid cruise to the Greek Islands. First class."

"That's nothing," interrupted the third. "For the last five years now my son has been seeing a psychiatrist three times a week, and the whole time he talks about nothing but me."



Now We Can Understand Brexit

Oxford University researchers have discovered the densest element yet known to science.

The new element, Governmentium (symbol=Gv), has one neutron, 25 assistant neutrons, 88 deputy neutrons and 198 assistant deputy neutrons, giving it an atomic mass of 312.

These 312 particles are held together by forces called morons, which are surrounded by vast quantities of lepton-like particles called pillocks.

Since Governmentium has no electrons, it is inert. However, it can be detected, because it impedes every reaction with which it comes into contact.

A tiny amount of Governmentium can cause a reaction that would normally take less than a second, to take from 4 days to 4 years to complete.

Governmentium has a normal half-life of 2 to 6 years.

It does not decay, but instead undergoes a reorganisation in which a portion of the assistant neutrons and deputy neutrons exchange places.

In fact, Governmentium's mass will actually increase over time, since each reorganisation will cause more morons to become neutrons, forming isodopes.

This characteristic of moron promotion leads some scientists to be-

lieve that Governmentium is formed whenever morons reach a critical concentration.

This hypothetical quantity is referred to as a critical morass.

When catalysed with money, Governmentium becomes Administrationium (symbol=Ad), an element that radiates just as much energy as Governmentium, since it has half as many pillocks but twice as many morons.

The Best of Brexit?

Perhaps the best comment on the subject of Brexit, although a little dated by now, was the one liner, "For the first time ever we could well see the end of May before the end of April!"