Calf Scour

Protecting your farmers’ future from calf scour

Calf scour remains one of the most widespread diseases affecting cattle livestock enterprises. With scour affecting virtually every dairy or beef unit that rears young calves, SQPs can make a big difference to these businesses by providing well-founded and up-to-date advice on the best way of protecting calves from the disease.

The latest National Calf Scour Survey conducted by Dairy Farmer magazine and Farmers Guardian in October 2011, indicated that of the 800 farmers who responded, over 60% had lost calves to scour in the last 12 months, with 1 in 4 acknowledging severe scour problems over the same period.

According to the farmers responding to the survey, Rotavirus is the most prevalent infectious scour-causing pathogen on UK calf units. On farms where a causative disease organism was identified, Rotavirus was detected in 45.7% of cases, with E. coli K99 (24.7%) and Coronavirus (12.4%) also established as significant pathogens.

It is very difficult to treat calves against the main viral causes of scour - Rotavirus and Coronavirus as they do not respond to antibiotic treatment. These organisms can persist in different environments for several months, making it impossible to totally eliminate them. In the battle against calf scour, the goal is to reduce the probability of infection as much as possible by limiting the number of attacks an animal undergoes in a given period.

The only effective disease management strategy is to boost immunity through high quality colostrum feeding as well as implementing best management practices. The best way of boosting colostrum quality to protect calves from scour caused by Rotavirus, Coronavirus and E. coli K99 is to vaccinate the dam with Rotavec™ Corona. Unfortunately though, low vaccination rates and poor colostrum management are impacting on rearers ability to meet the serious challenge of calf scour.

According to a recent study, Reducing the wastage in the dairy herd, 8% of dairy calves, including dairy beef, are born dead or die within 24 hours of being born. Furthermore, on top of these initial losses, 14% of heifer calves born alive fail to reach first calving, and a further 15% die or are culled during their first lactation.

With this in mind, it is important that SQPs clearly communicate the practical benefits of vaccination and simple regimen required for good colostrum management.

Mother nurtured: The benefit of dam vaccination.

At birth, a calf has virtually no protective antibodies in its system and these can only be absorbed via an adequate supply of cow ‘first milk’ – colostrum. Dam vaccination with Rotavec™ Corona, 12 to 3 weeks prior to calving, helps to ensure high levels of antibodies against Rotavirus, Coronavirus and E. coli K99 in the colostrum. It is these antibodies which confer immunity to the calf and act as a protective barrier to infection in the gut.

• A 2ml shot of Rotavec™ Corona may be given at any time between 12 and 3 weeks before calving – meaning that all cows calving over a 9 week period can be vaccinated on a single day – saving on labour and allowing minimal handling of in-calf cattle.

• In order for calves to gain disease protection from drinking antibody-rich colostrum they must get at least three litres within the first six hours of life. Current work within the UK suggests that over 50% of calves born do not receive sufficient colostrum and that frequently even animals that have been seen to nurse by themselves will not receive enough. The capacity of absorption of antibodies is high during the first hours after birth and disappears once the calf is 24 hours old. That’s why getting the colostrum into them quickly is very important.

• Continue to feed colostrum as long as practical – scour caused by Rotavirus, Coronavirus and E. coli K99 predominates in the first three weeks of life. Optimum protection is only achieved through a continual local supply of antibodies in the intestine during this risk period and, secondly, the absorbed antibodies in serum.

Happy New Year from everyone at MSD Animal Health.

While we hope it’s a prosperous 2012 for farmers in the UK, we know from experience that they will need SQP assistance throughout the year to help ensure their livestock stay as healthy as possible.

In this issue we look specifically at how you can help those farmers rearing youngstock ready their defences against calf scour by providing guidance on dam vaccination with Rotavec™ Corona and effective colostrum management.

In the current economic climate any stock loss or growth setback would be significant, so protecting their future livelihood from the threat of infections like calf scour should be top of mind for every farmer rearing youngstock. Your added insight can help them make the right choices.

Remember to complete and return your TRADEdge quiz too at the end of the Bulletin and ensure you collect those valuable AMTRA points.
WHAT YOUR FARMER NEEDS TO KNOW
Your SQP discussion with the farmer needs to cover the following essentials:
• Vaccination is a single injection
• Vaccinate during each pregnancy, between 12 and 3 weeks before calving is expected
• Dosage is 2ml, by intramuscular injection in the side of the neck
• Passive protection will commence from the start of colostrum feeding
• Duration of immunity: In calves artificially fed with pooled colostrum, protection will continue until colostrum feeding ceases. In naturally suckled calves, protection against Rotavirus will persist for at least 7 days and against Coronavirus for at least 14 days

A broad window for vaccination with Rotavec™ Corona
Rotavec™ Corona vaccination protocol for heifers and cows

In addition to vaccination and effective colostrum management, good hygiene and a clean calving environment can also help prevent scour taking hold. Most scour bugs come from the faeces of the dam and other mothers, so minimising exposure of the calf to cow dung significantly reduces risk of disease. It is also extremely important that milk and milk replacers are prepared cleanly and accurately. For dairy calves, provide plenty of clean bedding, disinfect calving boxes and pens between calves and minimise contact with other calves’ faeces. For beef calves, if indoors, provide plenty of clean bedding and consider calving outside.
1. Where do most scour bugs come from?  
- Contaminated feed  
- Faeces of the dam and other mothers  
- Farmers hands

2. In the National Calf Scour Survey what percentage of respondents had lost calves to scour in the last 12 months?  
- 25%  
- 45%  
- 60%

3. What volume of protective antibodies do calves have in their system when they are born?  
- Virtually none  
- 30%  
- 50%

4. All of the following are found in colostrum, but which confers immunity?  
- Protein  
- Fat  
- Vitamins  
- Antibodies

5. How many litres of colostrum should calves receive within the first six hours of their life?  
- 1  
- 3  
- 5

6. What period is the window of vaccination with Rotavec™ Corona?  
- 16 to 12 weeks before calving is expected  
- 3 to 1 weeks before calving is expected  
- 12 to 3 weeks before calving is expected

7. What is the dosage for Rotavec™ Corona?  
- 2ml  
- 3ml  
- 4ml

8. How many injections of Rotavec™ Corona are required during each pregnancy?  
- 1  
- 2

9. Vaccinating with Rotavec™ Corona protects against?  
- Rotavirus  
- Coronavirus  
- E. coli/K99  
- All of the above

10. Which of these actions can help reduce the risk of scour?  
- Disinfecting calving boxes  
- Clean bedding  
- Minimising contact with other calves faeces  
- All of the above

For more information about Rotavec™ Corona and its appropriate use contact your MSD Animal Health Account Manager.

Further information is available from MSD Animal Health, Walton Manor, Walton, Milton Keynes MK7 7AJ. Tel: 01908 685685 Fax: 01908 685635  
E: vet-support.uk@merck.com Internet: www.msd-animal-health.co.uk
‘Use Medicines Responsibly’.
Please see: www.noah.co.uk/responsible for more information.

Rotavec™ Corona is a combined bovine Rotavirus, Coronavirus and E. coli K99 vaccine (inactivated).

Uses For the active immunisation of pregnant cows and heifers to raise antibodies against E. coli adhesin F5 (K99) antigen, Rotavirus and Coronavirus.

Contra-indications, warnings, etc.

Warnings: Do not vaccinate unhealthy animals. No information is available on the concurrent use of this vaccine with any other. It is therefore recommended that no other vaccine should be administered within 14 days before or after vaccination with this product. Part used containers of the vaccine should be discarded within 8 hours of opening.

Side effects: The oil adjuvant provides the convenience of a single shot vaccine and has been carefully chosen to minimise any consequent side effects. It may produce a detectable swelling at the site of injection in a proportion of animals. The injection site reaction gradually reduces in size until it is no longer detectable, usually 14 to 21 days after treatment.

As with all vaccines occasional hypersensitivity reactions may occur. In such cases appropriate treatment such as adrenaline should be administered without delay.

Withdrawal period: Zero days.

Operator warning: To the user - If you inject yourself accidentally with this product, go at once to the nearest Accident and Emergency (Casualty) Department of a hospital and show the information printed below to the doctor (or nurse) on duty.

To the doctor - Accidental self-injection with this oil-based product can cause intense vascular spasm which may, for example, result in the loss of a digit. Expert PROMPT surgical attention is required and may necessitate early incision and irrigation of the injected area, especially where there is involvement of finger pulp or tendon sheaths.

Legal category: POM-VPS

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Reference: